

PHOTO: JARED PLANZ



Mountains to Bay Grazing Alliance

April 2022 Newsletter

Control Seedheads in Cool Season Forages

by Matt Poore, Animal Science Department Extension Leader and Ruminant Nutrition Specialist
North Carolina State University

Cool-season perennial grasses like tall fescue, orchardgrass, and bluegrass are very important in many pasture systems.

Each of these grasses only produces seedheads during the spring and managing to prevent those seedheads from reaching maturity will improve the quality of the pasture during late spring and summer—and will be a critical first step in toxic tall fescue pasture renovation.

When cool-season perennial pastures green up in spring there are two populations of tillers present. (A tiller is the individual part of each plant that comes from the crown and contains a growing point that pushes up leaf growth.)

The older tillers will be destined to make a seedhead (called reproductive tillers), while younger tillers will not make a seedhead until the following year (called vegetative tillers).

Vegetative tillers continuously develop from the crown. The flowering tillers start to elongate as the seedhead develops (the boot stage), and eventually the heads emerge. Once the head starts to flower and set seed, the nutritive value of the seedhead declines rapidly.

During this stage the vegetative tillers are suppressed by shade and also by hormones released by the flowering tillers.

Removing the flowering tillers early will release the vegetative tillers to make additional growth. It will also favor lower growing species like white clover.

The collective effect will provide much better quality grazing during the rest of the year.

Removing the seedheads will also prevent mature seed from developing which can be an irritant to the eyes of grazing cattle, and also will result in potential reseeding, which is undesirable in some situations.

In the case of infected tall fescue, toxins are concentrated in the seedheads, so removing seedheads is one of the most important practices to reduce fescue toxicosis.

There are several ways we can control the development of the seedheads in cool season perennial grasses.

Clipping pasture is the most common approach. While clipping is effective if done early, often the seedheads are allowed to mature too long, resulting in mature seed.

Also, the resulting cut stems are sharp and can impede grazing if clipping is too high.

Often clipping is done at about 12 inches to avoid cutting “available forage.” Unfortunately, this leaves a lot of low quality forage and is the perfect height for those sharp stems to poke a cow in the eye, potentially leading to pinkeye.

If you control seedheads by clipping, then do it before seeds mature and at a short enough height to remove much of the stems.

Subsequent grazing cycles will tend to be to that clipper height, which ideally would be 4 to 6 inches.

Cutting hay at the boot or early flower stage is a good way to remove seedheads.

Hay should be cut early enough such that vegetative tillers and other species have plenty of time to grow before hot summer weather develops.

The traditional practice of allowing hay to “ripen” is still too common, and when weather turns hot and dry, these late cut stands

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provide little regrowth because vegetative tillers will be small and inactive and easily dried out, and other plants present are accustomed to heavy shade that is abruptly removed.

Sun curing for hay will also reduce toxin levels in toxic tall fescue, so that is another advantage of hay on farms dominated by Kentucky-31 toxic tall fescue.

Be aware that baleage/haylage from toxic tall fescue will be more toxic than hay made from the same forage due to limited exposure to UV light.

Also, if you make your own hay, cutting before mature seed is present will help you prevent moving toxic tall fescue into novel endophyte stands or stands of other non-toxic forages.

In the case of tall fescue, the herbicide metsulfuron suppresses seedheads when applied in the boot stage.

Metsulfuron is an active ingredient in Chaparral and Cimarron, and both will control seedheads. The herbicides kill the reproductive tillers, while vegetative tillers are only slightly suppressed.

We did a demonstration with this approach several years ago, and when application was during the boot stage or earlier, seedheads were effectively suppressed, forage quality was higher, and toxin levels were reduced.

Suppressing fescue seedheads also releases other cool-season forages like orchardgrass and bluegrass that may be in the stand and which are not impacted by metsulfuron.

Traditionally, cattle have been turned out to pasture once plants are about six inches or higher.

Whether in a rotational or continuous grazing system, this practice means that most of the pasture is grazed later than optimal, resulting in a lot of seedheads and the need to clip.

Turning cattle out earlier, as soon as tillers start to elongate, and moving fast during the first cycle in a rotational system can effectively control seedheads. When in the boot stage, animals readily graze them off, resulting in effective seedhead control.



PHOTO: COURTESY MATT POORE

The key to this practice is to move animals fast enough to prevent close grazing of vegetative tillers.

This practice has a “sweet spot” of about two weeks when most of the growing points are elevated, but seedheads are still palatable enough to be readily consumed.

Another traditional practice is to allow cool season pastures to mature so they can reseed themselves.

While it may be desirable to do this (rarely) when pastures are thin and most plants are desirable, it often also allows weeds, toxic tall fescue, and other undesirable plants to make seed and build up in the pasture.

At some point a complete pasture renovation (removing the old stand and replacing with improved forages) is beneficial when pastures are thin.

If you do plan to renovate pasture this season you should make efforts to reduce all kinds of mature seeds produced on the pasture in the year prior to renovation.

This is critical when converting from toxic tall fescue to novel endophyte tall fescue, but is also a good policy to reduce weeds and other non-seeded species in any new stand.

Completely preventing mature seeds for renovation of toxic fescue pastures will likely require two clippings, or a combination of

hay and clipping, metsulfuron and clipping, or early grazing and clipping.

In most cases, a single one of these practices will improve quality of pasture as described earlier, but none will by itself control seed production adequately in preparation for renovation projects.

Doing your best to control seedheads through combining the tools of rapid rotational grazing, early hay production, and herbicide suppression will improve forage quality.

Preventing mature seedheads will also reduce symptoms of fescue toxicosis and is a critical step in preparing pasture for pasture renovation with non-toxic forages.

How will you control seedheads this year?

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Author Matt Poore is the Animal Science Department Extension Leader and Ruminant Nutrition Specialist at North Carolina State University. This article is written for the Novel Notes and appears here with permission of the author.

The Alliance for Grassland Renewal is a national organization focused on enhancing the appropriate adoption of novel endophyte tall fescue technology through education, incentives, self-regulation, and promotion. For more resources or to learn more about the Alliance for Grassland Renewal, go to [grasslandrenewal.org](http://grasslandrenewal.org)

# How Should I Adjust My Hay Fertilization Due to High Fertilizer Prices?

by John Fike, Extension Forage Specialist, Virginia Tech

Originally published in the Virginia Forager

Fertilizer prices, particularly for nitrogen (N), are hurting farmers in a big way. The price of N has skyrocketed over the past year.

For example, UAN28, perhaps the most popular fluid N fertilizer, started off 2021 at about \$210 per ton but finished the year at more than \$575 per ton (see table).

In the same time period, potash went from about \$360 to \$800 per ton. Similar increases occurred with phosphorus and prices have continued to rise in January. So how does one manage around high prices?

You probably can't avoid the added fertilizer costs altogether, but if you are strategic about fertility management, you may be able to lower the impact of sky-high nutrient input costs.

If you have not given much past effort to managing soil fertility, look at this as an opportunity to tighten both nutrient and forage management on your farm operation both now and into the future.

Unless you're a commercial hay grower, one of the best ways to lower hay fertility bills is to need (and feed) less hay.

Virginia Cooperative Extension's "Graze 300 Virginia" program is organized around the idea that about 300 grazing days per year is close to optimum for farm profitability (see [ext.vt.edu/agriculture/graze-300.html](http://ext.vt.edu/agriculture/graze-300.html)).

If you're feeding hay for much more than 60 days per year, consider working with your county agent to evaluate your situation and see how you can extend the grazing season.

Tools and practices to extend grazing include rotational stocking (rotational grazing) management and stockpiling (both in fall and summer).

Rotating through pastures and feeding hay around the farm (not at a central location) also helps by evening the distribution of manure and urine.

Although reducing hay needs is a sure way to reduce hay fertilization needs, most farms can't—and probably shouldn't—eliminate hay altogether. So, what are other sound cost-saving measures?

One of the best investments you can make in your fertility program is to test soils. Extension agents are well-known (and sometimes teased) for so often suggesting that the first step in managing fields or farms is to soil test.

However, as management guru Peter Drucker is often quoted, "You can't manage what you can't measure." Fortunately, we have soil measures that give us useful information for managing nutrient inputs. Assuming you have the information then, what do you do with it?

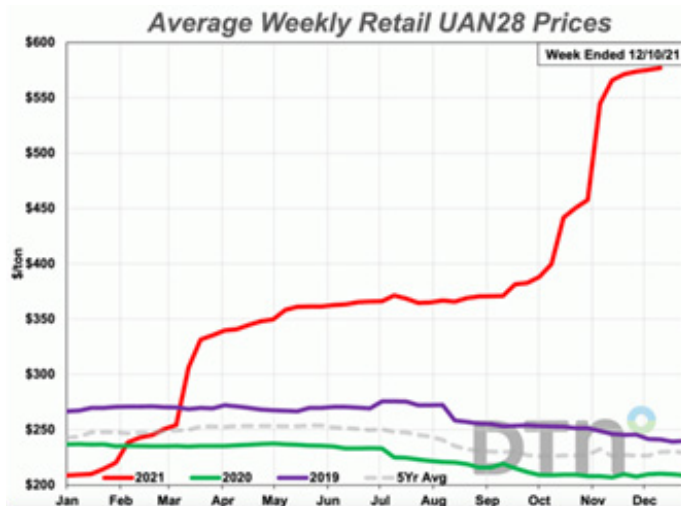
**Check your pH.** Lime prices have not increased to the degree seen with synthetic fertilizers. If your soils have low pH, adding lime may provide one of the biggest bangs for the buck.

Keeping pH between 6 and 7 will improve availability of phosphorus (P), potassium (K), and other nutrients.

For grass and grass-clover mixes, pH above 6 will be adequate. For alfalfa or legume-based stands, pH should be 6.5 or greater.

Note, however, that if you need to increase pH, it will take several months for the pH to change. Adequate pH, P, and K will support legume growth that in turn will supply pastures and hayfields with N.

**Strive to keep P and K in the medium range.** Plant response to fertilizer P and K inputs diminishes as soil P and K levels increase.



The average retail price of UAN28 was up 20% from a month prior. The nitrogen fertilizer's average price was at \$577 per ton the first full week of December 2021, which continues to be an all-time high in the DTN data set. (DTN chart, <https://www.dtnpf.com/agriculture/web/ag/crops/article/2021/12/15/nitrogen-fertilizer-prices-continue>).

At today's prices, the response to added fertility may be uneconomical if you're applying nutrients to levels much above medium test levels.

If you're in the medium range, bide your time, hold your dollars, and wait for better prices down the road—but don't get into a habit of not maintaining pasture and hayfield fertility!

**Fertilize to test.** Far too often, producers have routinely applied straight blends like 10-10-10 or "triple 19" without considering a soil test.

On a farm visit a few years ago, a producer was curious why their hay stand was less productive, despite continued fertilization (with a straight blend).

The problem was that the added fertility inputs were not sufficient to replenish the K being removed from the hayfield.

Getting a custom blend may take a bit more work, but it can be better tailored to the need, both reducing inputs and preventing overapplication of expensive and unneeded nutrients (that may also have negative environmental effects).

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**Where possible, use alternative nutrient**

**sources.** Depending on your location (and management constraints), biosolids, poultry litter, and other animal manures can offer a source of low-cost nutrients, particularly N and P, as well as organic matter. This may reduce need for N and P, but K likely will still be necessary.

**Feed hay back on hay ground.** One may cringe at this idea given the potential to damage a hay stand. However, this can be an opportunity to return nutrients to the field under the right circumstances. Feed when the ground is frozen or dry. Unrolling bales will further reduce animal impact.

Many farmers may have adequate soil pH and nutrients but feel the need to add N to increase the hay crop.

However, stands on fertile ground and with significant legumes may not warrant N inputs at today's high prices.

As with P and K, pounds of forage produced per unit of N input will be greater at low fertility rates. But will it pay?

I'm no economist, and you should do your own numbers, but a little back-of-the-envelope calculating may be helpful to

| N rate<br>lb/ac | Yield<br>ton/ac | lb forage<br>per lb N | Hay value, \$/ton       |       |       |       | N cost<br>\$1.03/lb | Value minus cost by \$/ton |       |       |       |
|-----------------|-----------------|-----------------------|-------------------------|-------|-------|-------|---------------------|----------------------------|-------|-------|-------|
|                 |                 |                       | \$60                    | \$80  | \$100 | \$120 |                     | \$60                       | \$80  | \$100 | \$120 |
|                 |                 |                       | ----- \$ per acre ----- |       |       |       |                     | ----- \$ per acre -----    |       |       |       |
| 0               | 1.50            | --                    | \$90                    | \$120 | \$150 | \$180 | --                  | \$90                       | \$120 | \$150 | \$180 |
| 50              | 2.19            | 27.6                  | \$131                   | \$175 | \$219 | \$263 | \$52                | \$80                       | \$124 | \$168 | \$211 |
| 100             | 2.83            | 26.5                  | \$170                   | \$226 | \$283 | \$339 | \$103               | \$67                       | \$123 | \$180 | \$236 |
| 150             | 3.34            | 24.6                  | \$210                   | \$268 | \$334 | \$401 | \$155               | \$46                       | \$113 | \$180 | \$247 |

*These yield numbers suggest that if a pound of N generates 25 pounds of forage, it may still be effective to fertilize at between 75 and 100 pounds N per acre—provided you're getting \$100 per ton. However, if your hay brings \$60 or \$80 per ton, it may not make sense to fertilize at today's prices.*

consider the value of N inputs and hay outputs to determine if this is worthwhile.

I dug up some numbers from a recent Kansas study looking at fescue response to N. These were newly established fields, so response to N (about 25-28 pounds forage per pound N) above a "0" fertility rate may be higher than in long-term productive hayfields and pastures.

If your hay field has abundant clovers or legumes, the fertility response may be much lower.

These yield numbers suggest that if a pound of N generates 25 pounds of forage, it may still be effective to fertilize at between 75 and 100 pounds N per acre—provided you're getting \$100 per ton. However, if your hay brings \$60 or \$80 per ton, it may not make sense to fertilize at today's prices. If you do plan to fertilize cool season hay fields, try to time applications to periods of warm spring weather when forages are rapidly growing.

To the extent possible, apply the fertility 1-3 days ahead of rain.

Many farmers use urea as their fertilizer N source, but urea is subject to high losses (up to 40%!) from volatilization. Urea with adequate NBPT urease inhibitor will reduce volatilization and increase use efficiency.

Generally, nutrient needs for pasture soils are limited if the fields are well-managed because nutrient removal is low. However, this may not be the case where fields are overgrazed and subject to erosion.

Using better grazing management can allow plants to recover and be more productive, and will also improve nutrient distribution across the farm.

Remember, too, that clover is the best N resource in pasture settings. Abundant and productive clovers may supply 100-150 pounds of N per acre annually.

## Maryland Horse Farms and the Chesapeake Bay Graziers

by Jane Thery, President and CEO of Green Horse Enterprises, LLC

Green pastures and healthy soils are a net plus for our natural environment.

Although most commonly thought of as pastures for ruminants such as cattle and sheep, horses are a large and growing part of our Maryland agricultural scene. About one-quarter of Maryland's agricultural land is in horse farms, topping 700,000 acres.

Horse farm owners generally combine a commitment to quality land stewardship, an appreciation of good pastures for horse health, and an interest in environmental protection, including the health of the Chesapeake Bay.

Among the newer generation of horse owners and riders, advocacy for a clean environment is strong.

Young people want their sport and the home for their horses to be "green." Or as Amy Burk, Director of Equine Studies at the University of Maryland, College Park states, they are committed to, "Saving the environment one blade of horse pasture grass at a time."

Agricultural extension officers not only look to improve conditions for livestock but are also promoting best management practices on farms that reduce pollution and support the natural environment. This has led to a broad discussion on how to define and promote "green" horse farms.

What is a "green" horse farm? Climate change discussions are on the top of the global agenda in 2022 with a big focus on reducing the atmospheric pollutants of carbon dioxide and methane.

These gases are shown to create an effect that traps solar heat in the atmosphere, warming the planet and causing sea level rise and stronger storms.

In our region, water pollution throughout the Chesapeake Bay watershed—which threatens clean water availability and wildlife—is being confronted by multiple government and non-government groups from the Chesapeake Bay Foundation to your local sewer authority.

The relationship between these global and regional agendas and horse farms falls into three categories: water, carbon, and wildlife habitat.

An environmentally-sound, or "green" horse farm, is managed with the best practices to

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control water run-off and erosion, reduce carbon emissions and fix carbon in pastures and trees, and protect wildlife habitat. These practices create a healthy environment for the horses and demonstrate high-quality farm stewardship.

On a “green” horse farm, water management is key. The basic principle is to slow the water down while it flows to areas where it can filter into the ground.

Water runs off rooftops, pastures, and paved surfaces. The first step in water management is to see where the water naturally flows and collects.

Barns and indoor arenas need gutters, downspouts, and a way to draw the water away from the structures—such as tubing, French drains, and underground diversion systems.

Once away from the buildings, the water needs to be captured in vegetated areas with trees and native plants and/or ponds to reduce the water flow off the farm and promote water filtration into the local water table.

Water flowing off paved areas is slowed with grassy verges, gravel, and diversion socks to reduce erosion and push the water into vegetated areas where it can be absorbed.

Water control in pastures is essential to horse health. To avoid muddy areas, runoff into neighboring areas and streambank breakdown, streams need to be fenced off and a wide vegetative border maintained between pastures and watercourses on the farm.

Pastures and paddocks with good grass cover and/or a footing system that reduces mud keeps the water draining well and the horses’ feet healthy.

This quality water management will protect horse health and the local watershed from nutrient and sediment runoff.

The carbon footprint of your horse farm rests on how much fossil fuel energy is used and the carbon fixing role of soil, pastures, vegetation, and trees.

Building design to maximize natural light and natural ventilation is the first step.

Using the principles of airflow physics, the barn construction can create updrafts to provide fresh air for the horses with minimum use of electricity.

Skylights and positioning barns and arenas can maximize natural light for the horses and minimize artificial lighting needs.

An energy audit highlights ways that energy use efficiency can be increased with, for example, LED lights and low-power-use heating systems.

The move toward installing solar panels and switching to electric vehicles reduces the overall farm use of fossil fuels. These methods eliminate the generation of carbon dioxide.

For carbon dioxide reduction, or “fixing,” horse farms have a super power when they include healthy pastures, natural vegetation, and trees.

Healthy pastures fix carbon in the grasses and in the soil. Keeping roots in the ground and deep topsoil with active microbes is a proven way to fix carbon.

AND great pastures are great for our horses. Horse farms with woodlots, landscaping, and natural vegetation provide carbon fixing across all of our agricultural land.

Also, unlike the ruminants, the single-stomach digestive system of horses produces very little methane.

Part three, after water and carbon, is wildlife habitat. Most horse farms provide a resting place and feeding grounds for birds and small animals.

Minimal use of pesticides and herbicides helps these wild populations flourish.

Added best practices that help foster habitat include planting specific plants to attract pollinators, restoring streams and stream banks for fish and other aquatic animals, eliminating invasive species and planting native ones, providing bird houses, and minimizing noise and light pollution.

Finally, a word on horse manure management. Horses provide us with about fifty pounds of natural nutrients each day as they digest large amounts of vegetal products and poop.

The best management practices for horse



manure are: dragging pastures to break up manure mounds for worm control and soil absorption, picking up manure from paddocks and stalls, storing manure on a hard surface, leveling areas to avoid runoff, regular picking up of manure off the farm, and, if feasible, composting and using and/or selling composted horse manure as a natural and local soil amendment.

A “green” horse farm can be built from scratch with careful site design, knowledge of the needs of the horses and the clients, and a good dose of common sense.

An existing horse farm can be upgraded with new water management installations, pasture improvements, solar panels, and barn redesign, just to name a few.

There are enormous resources available in Maryland to find out how to do this from local Soil Conservation Districts, the University of Maryland Agricultural Extension, and county and state offices of agriculture and the environment. There are also new sources of funding to help out with the costs as well as many conservation and agricultural consultants for guidance.

The horse community is a great asset to the natural environment and it can be even better with education on the elements of a “green” horse farm and implementation of these best management practices. Grazing horses and beautiful green pastures are a plus for our communities and our natural environment.

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*Author Jane Thery is President and CEO of Green Horse Enterprises, LLC. In 2011, she founded the Maryland Horse Council Farm Stewardship Committee. To learn more, visit [greenhorsellc.com](http://greenhorsellc.com) and [mdhorsecouncil.org](http://mdhorsecouncil.org).*

# Building a Farm and a Movement

by Emmy Nicklin, Chesapeake Bay Foundation

I met Michael Heller more than 10 years ago on a particularly humid summer morning.

We rode out to meet the cows in his '96 Ford Ranger, windows down, Beethoven's Coriolan Overture on the radio drifting across the farm fields on warm June air. (Sadly, he was not armed with his bagpipes that day, which I'm told he occasionally plays for his herd of Red Angus and Red Devon cattle to make the Scottish breeds feel more at home.)

Inspirational. Transformative. Curious. Humble. Whimsical. Big-hearted. These are just some of the words people use to describe Heller, the iconic manager of CBF's Clagett Farm who, after 40 years doing his part to help build soil health and save the Bay, retired this March.

As Jared Planz, Clagett's vegetable manager says, "Michael was into soil health before soil health was cool."

When Heller started at CBF's newly acquired Clagett Farm in 1982, the 285-acre farm located in Upper Marlboro, Maryland, was in desperate need of some care.

The farm had been used purely as a corn and tobacco farm for many years, and all its valuable topsoil was gone.

Quickly, Heller got to work rebuilding the soil.

Heller, a plant ecology major in school, cultivated fields of orchard grass, timothy, clover, hairy vetch, and other diverse plant species that never have to be tilled, therefore they protect the ground, soak up nutrients, build the soil, and improve water quality. And he got cows.

"The cows were the first thing I got because that's the best way to build soil," Heller says. "To have permanent grass and have cows grazing and replenishing with their manure. I got the cows to build soil. I love the cows."

Now in his retirement, Heller is no less passionate about building soil and what it can do for mitigating climate change and saving the bay.



Clagett Farm Manager Michael Heller tends to the farm's sheep. Rotating livestock through grass pastures, a practice called rotational grazing, helps build healthy soils that retain water and trap nutrients.

On another recent visit to the farm, Heller holds out his hand with an unusual glowing enthusiasm for a bone-chilling morning in February.

He cups an imaginary pile of dirt: "When you pick up a handful of soil, you are holding literally more than a billion living organisms.

It's hard to believe. There's more genetic diversity in the soil than all the plants and animals on the surface [of the Earth]."

It was only natural that Heller wound up at Clagett. The Pennsylvania native grew up working on the farm next door, bird watching with his mother, and tending his garden: "My friends used to joke that I was the only high school quarterback with a wildflower garden."

After stints at Hawk Mountain Sanctuary, the National Park Service at Cape Hatteras National Seashore, and the University of Maryland, Heller found his way to what he calls "a wonderfully impossible job," at Clagett.

"Every season is a little different here. That's part of the beauty of it . . . Here I am 40 years later, and the learning curve is still going straight up. With farming, you can't just rely on what you did last year. You have to be adapting and learning all the time. So, I'm still learning. It's amazing."

Over the years, Heller's contributions to the farming community and the regenerative agriculture movement have been substantial.

He was instrumental in starting both Future Harvest, a regional sustainable agriculture organization, and Maryland Grazer's Network, a mentorship program where farmers learn from other farmers about successful and sustainable farming practices.

In fact, in January of this year, Heller was honored with a Lifetime Achievement Award from Future Harvest.

As CBF colleague Beth McGee says: "Michael is a quiet leader, never seeking attention, yet his footprint is broad and deep." And his connection with other farmers is real and profound.

"The beauty of working on the farm here is it directly affects water quality and the Bay," says Heller, "but also it allows me and CBF to get a real perspective of what farmers need to be successful. Because we want to help farmers be successful and protect the Bay."

In his downtime, Heller co-authored a cookbook about grass-fed beef, started Clagett's CSA (in which roughly 35 percent of

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each year's harvest is donated to the Capital Area Food Bank), became a Johns Hopkins visiting scholar, raised three bright children, and spent as much time as possible either on a tractor or in a canoe.

"I love to hang out in a canoe. I'm never happier than when I'm in a canoe, in a marsh, listening to marsh wrens and bitterns and rails calling."

While Heller may have "retired" on March 4, he's thankfully not going anywhere. His ties to Clagett, and the community he's built there, are too strong. He and his wife, his honey bees, and some sheep are moving up the road, roughly 15 miles away. He plans to continue to come and go and help out at the farm frequently.

Thinking back on that summer day when I first met Heller, after we had completed the farm chores, we retired to his back

porch, sipped lemonade and talked birds, Hemingway, and morning yoga rituals.

And we talked about the value of farms: "I just know that my kids are different for having grown up on a farm. I wish every kid could grow up on a farm. When [people] come out here, they always work a little bit . . . I think they see that there's a tangible result to work. And they get a real sense of a connection between the land and what's happening in the water."

## UPCOMING EVENTS

### Solar-Powered Water Pumping Systems for Livestock

April 7-8, 9:00 AM–4:00 PM

Shenandoah Valley AREC McCormick Farm  
128 McCormick Farm Circle, Raphine, VA

Join Virginia Cooperative Extension for an in-person and hands-on workshop focused on water pumping systems for livestock. Participants will learn the principles and applications of solar-electric water pumping. Register at [tinyurl.com/VCEsolarpump](https://tinyurl.com/VCEsolarpump).

### Virginia Forage and Grassland Council Fence-building Schools

April 7, 8:00 AM–5:00 PM: Boydton, VA

April 13, 8:00 AM–5:00 PM: Hillsville, VA

April 27, 8:00 AM–5:00 PM: Mauertown, VA

These workshops include a comprehensive overview of proper woven-wire fence construction, materials selection, and electric fencing. Participants will spend much of the day hands-on in the field, as they construct fence alongside expert instructors. To register, visit [vaforages.org/event/2022-fencing-school/](https://vaforages.org/event/2022-fencing-school/).

### What Do You Want in the Next Farm Bill?

April 8, 12:00–1:00 PM

Join Pasa for a virtual lunchtime discussion about how the federal Farm Bill can better support sustainable farms and communities. There will be a brief overview of what's included in the current bill, set to expire in October 2023, with an emphasis on provisions related to conservation, forestry, and energy. Then it's your turn! Relay your experiences working with existing Farm Bill programs and your ideas for changes and improvements. Pasa will collect your comments and share them with organizations and policymakers working on the next iteration of the bill. [Register by clicking here to visit the Pasa website.](#)

### Micro-Hydro Power Systems Workshop

April 9, 9:00 AM–6:00 PM

Riner Volunteer Fire Department  
3595 Riner Road, Riner, VA

Join Virginia Cooperative Extension for an introductory workshop exploring the principles and applications of hydro-electric water pumping. The session will begin with presentations in the morning through lunch, followed by an optional site visit in the afternoon to a field site approximately 6 miles away for in-person site assessment work. Please note, rugged terrain and difficult access to field site. \$40 registration fee includes lunch. Visit [tinyurl.com/VCEmicrohydro](https://tinyurl.com/VCEmicrohydro) to register.

### Pasture Management Field Day

April 21, 5:30–8:00 PM

Baltimore County Ag Center  
1114 Shawan Road, Cockeysville, MD

Join University of Maryland's Extension Agents and Specialist for this field day. Topics will include: Seasonal grazing strategies, managing damaged areas from the winter, and when the best time to lime and fertilize your fields. Register by sending an email to Erika Crowl at [ecrowl@umd.edu](mailto:ecrowl@umd.edu) or [clicking here](#).

### Forage Tour: Clean Water, Done Dirt Cheap

May 5, 9:00 AM–12:00 PM

1959 Mauzy Athlone Road, Broadway, VA

This in-the-field workshop will focus on temporary watering tools and techniques to enhance your grazing system. Includes hands-on demonstrations plus additional opportunities to learn about grazing management, pasture nutrient management, and soil health. Visit [vaforages.org/event/clean-water-done-dirt-cheap/](https://vaforages.org/event/clean-water-done-dirt-cheap/) to register.

### Maryland Sheep & Wool Festival

May 7–8, Howard County Fairgrounds

2210 Fairgrounds Road, West Friendship, MD

As one of the largest sheep and wool events in the country, the Maryland Sheep & Wool Festival attracts approximately 20,000 visitors over two days. Get the full festival schedule and tickets by visiting [sheepandwool.org](https://sheepandwool.org).

### Women in Ag Webinar Series: Considerations for Selecting and Purchasing Hay

May 11

Many livestock owners rely on purchased hay to feed their animals during certain times of the year. When it comes to hay selection and purchase decisions, there are several important factors to consider, including bale type/size, affordability, and hay quality and quantity. This webinar will discuss what to look for, how to determine if hay is appropriate, and how to determine how much hay is needed. [Register by clicking here.](#)

### Maryland Beef Producers Short Course Series 1: The Fundamentals of Beef Cattle Production

May 13-14: Queenstown, MD

May 20-21: Waldorf, MD

June 3-4: Keedysville, MD

This two-day introductory workshop covers many areas of the beef cattle industry in both a classroom and hands-on environment. The experience is designed as an introduction course for beginners, as well as a refresher for more experienced cattle producers. [Register by clicking here.](#)

### Beginner Grazing School

May 18-19, Orange, VA

This 2-day intensive course will cover everything you need to know to better manage grazing on your farm including forage and plant ID, pasture assessment, fencing and water system options, matching forage quality and livestock needs, and understanding a forage budget. Most importantly it will involve many hands-on activities to reinforce the concepts we cover in the classroom portion of the school. To register, visit [vaforages.org/event/2022-basic-grazing-school](https://vaforages.org/event/2022-basic-grazing-school).

### African American Farming Heritage on Maryland's Eastern Shore

June 25, 11:00 AM–2:00 PM

Save the date for this Future Harvest event! More details coming soon at Future Harvest's website—[click here to visit the site.](#)

# Mountains-to-Bay Grazing Alliance



Check out our website at [m2balliance.org](http://m2balliance.org) for the latest updates, resources, and calendar of events!

Funding for this newsletter is provided by the U.S. Environmental Protection Agency, Natural Resources Conservation Service, and PA Department of Environmental Protection through the National Fish and Wildlife Foundation's Innovative Nutrient and Sediment Reduction program.

This material in this newsletter is based on work supported by the U.S. Environmental Protection Agency (Assistance Agreement No. C896358101) and the National Fish and Wildlife Foundation's Chesapeake Bay Stewardship Fund, which promotes community-based efforts to develop conservation strategies to protect and restore the diverse natural resources of the Chesapeake Bay.

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This material is based upon work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under number NR183A750022C004. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture. USDA is an equal opportunity provider and employer.