



April 2023 Newsletter

## Amazing Graze

by Ann Basehore Starbard, Executive Director, Capital RC&D

As we flow into full blown spring, all your winter grazing plans begin to take shape—animal numbers double (or triple) in weeks, grass height quadruples almost overnight, and section fences need moving at least daily.

Rain or shine, you and your animals are on the move. Despite the craziness of it all, the grin on your face cannot be wiped away. You are in your Amazing Graze element.

It's a strange phenomenon to onlookers: WHY? they wonder, do you want to be out in the early morning, late evening, and rain showers setting fence and moving animals?

There's no need or time to explain. Either you get it or you don't. This fantastically simple idea takes on much magic when the warming spring sunshine is on your face.

Simple? Well not really. We are lucky to live on the third rock where the sun's energy meets plants' chloroplasts and carbon dioxide to produce a variety of sugars and other important plant growth molecules.

Cells divide, roots amass, plants grow. In the spring time, all of this happens—with the right conditions—at an amazingly fast rate.

Pasture plants are ready to grow and our animals are ready to be out there eating.

What are you ready to do? What new strategies do you have for this year?

- Try new fencing tools/technology?
- Plant different grasses in a new pasture area?
- Add another animal species to your grazing rotation?

- Use a grazing chart for the first time?
- Use a different breeding and birthing strategy to hit a specific market?

Farmer ingenuity, scientific knowledge, and innovative technology continue to evolve grazing, an ancient art form of feeding animals.

Grazing management apps, solar-powered smart collars, fence line pasture wheels, and timer engaged fence lifters are some of the newer gadgets being used to more efficiently and effectively graze animals.

We are always searching for better ways to do our job of growing nutritional food while being integral stewards of our land and community.

Carbon sequestration, nitrogen runoff reduction, water quality improvement, and greater soil biome diversity are some of the positive environmental results of properly managed grazing.

Establishing a whole farm grazing plan can add these improvements to your property, regional watershed, and overall climate. Amazingly, setting up a beneficial grazing system does not involve high infrastructure costs—if you own or have access to land.

Fencing, watering systems, pasture seeding, and nutrient amending are relatively inexpensive, compared to higher cost containment feeding systems.

Currently, there are a variety of funding, grazing monitoring, and advice opportunities available with regional, state, and federal organizations and agencies throughout the Chesapeake Bay watershed.

These opportunities and more can be found at the [Mountains-to-Bay Grazing Alliance](#) and [Capital RC&D](#) websites, among others.

Often, the biggest hurdle for starting or growing a grazing operation is land access, especially with current land prices in the Chesapeake Bay area.

There are creative solutions being used to jump this hurdle, including farm succession matching, conservation land leases, and apprentice programs, especially as older landowners are making moves to transition their agricultural businesses.

Grazing—despite its ageless simplicity—continues to develop. We continue to learn and make improvements, despite mistakes made along the way.

Collectively, we grow in our understanding of raising animals on the land, thus making management decisions that are beneficial to land, livestock, our farm business, and regional ecosystems.

The Mountains-to-Bay Grazing Alliance wants to help in that growth. What is missing in grazing education? What are the stumbling blocks stopping you from starting to graze or making improvements to a present system? Does grazing help your farm's bottom line? If not, what can help you earn more money while utilizing a grazing system?

We want to hear from you. Send your ideas and questions to [eronston@cbf.org](mailto:eronston@cbf.org). We'll keep the dialogue going in this newsletter.

Amazing Graze. Together, we can make improvements to our local grazing and agricultural lands, regional watersheds, and overall natural environment.

# Pasture Management Systems for Swine: An Historical Perspective

by Chelsea Becker, Graduate Research Assistant, Penn State University; David Hartman, Extension Educator, PennState Extension; and Elizabeth Hines, Swine Extension Specialist, PennState Extension

Pasture-based management systems for pigs are currently increasing in popularity as the consumer's interest in a pasture-raised pork product is at an all-time high.

Those who wish to start a pasture-based pig operation are remiss to learn that science-based management practices are difficult to find.

Rearing pigs on pasture requires managing a complex relationship between the pig, forages, and soil.

Pigs have limited digestive capabilities and will not utilize the pasture like ruminants would; most of their relationship with the soil and forage stems from their natural behaviors such as rooting.

Due to this complex relationship, significant focus should be placed on the producer's goals for forage management and using those goals to influence the way they manage their pigs.

Pasture is managed in generally one of four ways when rearing pigs:

**Permanent:** A permanent system refers to a pasture that has been seeded with perennial forage. This type of pasture will be reseeded based on the farmer's needs and stocking rate but does not require annual re-seeding.

However, it is important to note that continual pasture systems result in the lowest possible yield as the forage is not given time to recover.

A successful permanent system will require the growth stage and lifespan of forage to be the main priority.

**Temporary/Annual:** A temporary/annual pasture system is the inverse to a permanent system; it is seeded with annual forage and will not grow back after its initial growing season.

Using a temporary system will require the farmer to reseed the pasture annually.

This type of management system tends to be convenient to a farmer, but the continuous



grazing negatively impacts the roots, causing recovery to slow down.

It would be beneficial to keep your stocking rates low when using annual or temporary pasture management systems to keep forage damage to a minimum.

**Rotation:** Rotation systems involve rotating your crops to allow for a more consistent growing season.

Within this system, perennial grasses and legumes are put on a rotation schedule with grain crops.

After the pigs have utilized the grasses and legumes for several growing seasons, the residual materials on the field are plowed down and replaced with a grain crop.

The cycle will repeat itself, allowing the farmer to take advantage of multiple growing seasons and a large variation of crops.

Having grazed forage in the rotation will allow the farmer to build fertility, and reduce weed, insect, and disease pressure for subsequent crops.

These three pasture systems can be managed in various ways.

The most common type of management being used is a rotational system. In this system, swine are rotated throughout the available pastures, allowing those that are vacant time to rest and regrow.

Resting your paddocks allows the forage time to renew its energy sources, deepen its root

system, and enhance production through increased growth efficiency.

Rotational systems require the farmer to implement a rigid rotation schedule to ensure the pigs do not inflict severe damage onto the forage and the soil.

**Hogged-down:** Lastly, a hogged-down pasture system is allowing your pigs to completely tread down and consume the available forage and mature grain after the plant has matured and died off.

Historically, this management system was implemented before mechanical harvesting was widely available.

Hogging down is still being used today as an alternative to land clearing or machine harvesting. However, it is not to be used as your sole source of pasture management, but rather as a form of field and crop maintenance, and it is good convention to allow your pigs access to a pasture crop field while placing them on a hogged-down pasture.

When choosing which management system is right for your operation, it is important to consider the types of forage available, space allotted, geography of land, and size of herd.

Raising pigs on pasture is a task that needs to be tackled with flexibility, as there are many environmental factors that impact forage management. They will require continual changes for an operation to successfully get pigs and land in a manner that is environmentally sound and profitable in today's niche markets.

PHOTO: ELIZABETH HINES

# Using Crabgrass on Feeding Sites as a Summer Cover Crop

by David Fiske, Virginia Cooperative Extension

Most livestock operations have at least a few highly concentrated feeding areas that become denuded of forage cover over the winter and turn into a nursery for unwanted weeds and soil erosion the following summer.

Weeds such as spiny amaranth (spiny pigweed), pigweed, ragweed, and lambs quarter, just to mention a few, typically populate these areas and provide a weed bank for many years thereafter.

One solution to help suppress weeds and make these feeding areas more productive is to use crabgrass as a summer “cover” crop to help suppress weed growth and provide additional summer forage.

In late April, after cattle have started their pasture rotations and hay feeding has been ceased, excess manure and old hay should be

removed from the feeding areas.

After removing the manure and leveling out the area, crabgrass can be broadcast seeded at the rate of 6-8 pounds of seed per acre.

This seeding rate is about double the normal pasture rate but a thick cover is desired to help crowd out weed seedlings and establish a thick forage cover.

After seeding, a light drag can be pulled across the area to lightly incorporate the seed. Crabgrass germination should initiate when the soil temperature reaches approximately 70 degrees.

Because of the available plant nutrients usually present in these feeding areas, crabgrass should grow very vigorously from late June through August.



This hay feeding site was cleaned and seeded with crabgrass on April 30. By late July, in a drought, the crabgrass was over 20 inches tall and completely covered the entire feeding area. The thick crabgrass stand almost completely smothered out all broadleaf weed competition.



This hay feeding site was cleaned and re-seeded in early April with fescue. Note the lack of weed suppression. Although the fescue did germinate, the entire site was covered with ragweed and lambs quarter by late July.

## Reminders for Spring Grazing

by Matt Booher  
Virginia Cooperative Extension

Grass is really growing now, but it's not really growing... not quite yet anyway.

Keep the following in mind as you turn out your livestock onto pasture. Early spring grass is low in quantity, high in moisture, and low in fiber. This means fresh pasture is not yet a standalone feed source for your livestock.

Continue to make high-quality hay available daily, even if they don't seem to eat much of it.

Overgrazing during spring can cause grass root dieback. Ideally, you should not graze livestock on pastures less than four inches tall, but if you must do so, move to a new paddock frequently (e.g. every day or two). Even dividing a field in half and rotating between the two halves is better than nothing.

Internal parasites, such as the barber pole worm, have begun laying eggs in earnest. Efforts to rotate livestock frequently to new pasture and avoid grazing low to the ground can help keep parasite populations from skyrocketing.

Cool soils inhibit magnesium uptake by grass roots, which can lead to grass tetany in livestock. Make sure to feed a high-Mag mineral (at least 12% Mg) through May, particularly with lactating animals.

Now is an excellent time to control winter annual and biennial weeds like thistle, poison hemlock, or mustard. Keep in mind that controlling them now, when these weeds are immature, is more effective.

Because growing conditions are ideal for the next couple months, controlling weeds now also enables grasses to fill the void created when weeds die (much more so than they will later in the year).

# Alternative Fence Braces

by Matt Booher, Virginia Cooperative Extension

The classic H-brace is king, no question. However, at a current cost of about \$20 for a single 5-6 inch by 8 inch post, many farmers on a tight budget are looking for other options.

Here are a few that will get the job done, while being relatively cheap and potentially providing a solution in challenging terrain or situations where hand tools are all that's available.

**Footed-brace.** A footed-brace is built of a single vertical post with a diagonal brace post that is buried about 8-10 inches in the ground. A foot plate is often nailed to the end of the brace post.

In the photo, the angle of the brace post is a bit too steep; typically a 30-degree angle like that shown in the diagram would be more appropriate.

With any brace assembly, the deeper the vertical post can be buried, the better. Increasing the length of the diagonal post can make up for some loss of strength when the vertical post cannot be buried deeply.

Not only can this design be used for an end brace, it is also useful on a line post to brace against side pressure, such as on a bend.

**Floating brace.** A floating brace is similar to a footed brace except the diagonal brace post rests on a flat rock or concrete paver that sits on the ground surface.

A high-tensile wire is looped around the foot of the diagonal post and pulls back to the base of the vertical post (with the aid of a wire strainer).

Just as with the footed brace, the angle of the diagonal post should be fairly flat—about 30 degrees. The diagonal brace post should connect with the vertical post at about 2/3 the height of the top wire.

**Rock Jack Brace.** These braces are fairly common in some parts of the West, and they seem to do the job well.

Most rock jack designs utilize a single post in the ground, although some (such as the metal one in the accompanying photo) do not.

In either case, the core part of the design is a pyramidal frame that is weighed down by rocks and provides an anchor to pull against, serving as either an end brace or side brace.

The angle of the platform can be easily adapted to enable these to be built on a slope.

In fact, the first one I ever saw was on a hill so steep you could barely stand upright (kudos to the rancher for going to such lengths to keep his cattle out of the mountain creek where salmon were spawning).

**Rock Crib Brace.** These work for end or corner braces. Essentially it is a round basket (usually built of woven field fence) filled with rocks. Who doesn't have a pile of rocks laying around?

The photo shown here utilizes a tall rock crib due to the tall field fence that is being used; however, a shorter crib can be used if pulling just a few wires.

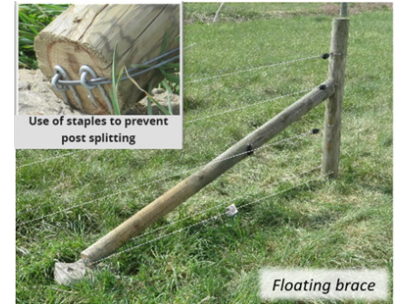
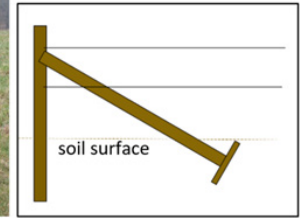
Rock cribs even work with electrified wire as long as an end insulator or insul-tube is used.

**Loc-Jawz.** Loc-Jawz is a bracing system using T-posts and high quality plastic brackets. Simple and quick to install with just hand tools, this system makes a strong brace once tension is put on the wires.

They are available for purchase directly from the manufacturer, as end or corner braces.



Footed brace



Use of staples to prevent post splitting

Floating brace



A pre-fabricated Rock Jack



An example of side bracing w/ a rock jack. Works just as well for an end brace.



# Update from Capital RC&D

Check out all the great work being done by Mountains-to-Bay Grazing Alliance partner Capital RC&D!

Capital RC&D worked with Perry County Conservation District to verify their tiered incentive cover crop program. This program reimburses farmers who sow cover crops to benefit soil health. The tiered program pays farmers more money per acre for using multi-species cover crop mixes.

Capital RC&D provided Franklin County Conservation District technical support to re-inspect older agricultural BMPs to determine if they are functioning. The project involves farm visits, identification of other unidentified BMPs, and farmer assistance in connecting with the Franklin County Conservation District or NRCS if additional BMP opportunities are identified.

Similarly, Capital RC&D provided Adams County Conservation District technical support to re-inspect older agricultural BMPs

to determine if they are functioning. The project involves farm visits, identification of other unidentified BMPs, and farmer assistance in connecting with the Adams County Conservation District or NRCS if additional BMP opportunities are identified.

Starting the final year of a three-year rotational grazing support grant, Capital RC&D has awarded 50% cost-share grants to over 50 producers, assisting transition to rotational grazing on over 1,085 acres.

Grazing plans have been shared with these producers, identifying grazier needs and future opportunities.

Capital RC&D supports administrative, financial, and outreach efforts for the Pennsylvania Grazing Lands Coalition. Podcasts, videos, and social media posts are part of our current project accomplishments.

We are in the beginning phase of implementing a Conservation Innovation

Grant working with four local farms who are adopting new practices to support the sequestration of carbon in the soil. Two farms are doing a grazing practice change, with the other two doing a cropping practice change. The project is also comparing traditional soil sampling methods with new soil probe technology.

Capital RC&D is continuing to organize and implement a cover crop transect survey of 31 counties in the Chesapeake Bay region in Pennsylvania.

The survey is done in two parts—a fall survey with follow-up during the spring. Half of the counties were done Fall 2022 with the follow up starting in June 2023.

The second half of the counties will be surveyed Fall 2023 and Spring 2024.

This survey began as a pilot project in 2010. Counties in the greater Chesapeake Bay watershed continue to be added.

## Mountains-to-Bay Grazing Alliance



## UPCOMING EVENTS

### Fence Building School

April 26, 7:30 AM–5:00 PM

Cross Keys Mill Creek Ruritan

5094 Battlefield Road, Harrisonburg, VA

Join Virginia Forage and Grassland Council for this comprehensive fence-building school. You will learn from leading industry experts about material selection, brace design, and fence layout and construction. The afternoon portion will include hands-on fence construction in the field under the guidance of our instructors. Register by visiting the VFGC website at [vaforages.org](http://vaforages.org).

### Pasture Walk at UMD Dairy

April 27, 6:00–8:00 PM

420 Folly Quarter Road, Ellicott City, MD

Join University of Maryland Extension and NRCS for an educational pasture walk at the University of Maryland Dairy. Extension educators are working on an ongoing heifer grazing study utilizing annual forages as a means to extend the grazing season and will discuss grazing management, pros and cons for using annual forages, and strategies for working annual forages into a pasture system. Event is free but registration is required. Visit [go.umd.edu/pasturewalkapril](http://go.umd.edu/pasturewalkapril) to register.

### Basic Grazing School

May 2 and May 3

Rapidan River Ranch

3375 Graves Mill Road, Madison, VA

9:00 AM–5:00 PM each day

Designed with beginning and experienced producers in mind, this two-day, intensive course will teach you everything you need to know to better manage grazing on your farm.

You will have hands-on opportunities in the field to work with temporary fencing, identify forage and weed species, evaluate pasture, and learn the critical points of designing an animal handling facility. The last day of the school features a workshop where you can sit down with our instructors to begin developing a custom grazing plan. Registration fee is \$150, which includes meals and materials. Visit [vaforages.org/events](http://vaforages.org/events) to register.

### Ask an Agroforester Webinar Series

May 4: Austin Unruh presents *Silvopasture on a Shoestring*

May 9: Jonathan McCray presents *Wildly Homegrown*

May 11: Eliza Greenman presents *Live Agroforestry/Silvopasture Design Consultation*

Appalachian Sustainable Development's "Ask an Agroforester" Webinar Series is an opportunity to come together for a deep dive into detailed information about specific agroforestry topics. Bring your questions for our regional agroforestry heroes! All webinars are from 7:00-8:30 PM. Visit [asdevelop.org/ask-an-agroforester](http://asdevelop.org/ask-an-agroforester) for more information and to register.

### Regenerative Grazing

May 18 and May 19, 9:00 AM–5:00 PM

Painterland Farms

908 Howland Hill Road, Westfield, PA

Join PASA Farming for this special two-day intensive workshop with world-renowned grazing consultant Ian Mitchell-Innes. Learn how to harness the energy of your pastures to improve the health of your herd, land, and business. Registration costs \$150. To sign up, visit [pasafarming.org](http://pasafarming.org).

### Summer Pasture Walk at Burnley Farm

May 24, 5:30–8:30 PM

18079 Shiloh Church Road, Montpelier, VA

In just two short years Burnley Farm has transformed from a cropping system to an improved grazing system including 50 acres of novel endophyte tall fescue and 18 acres of a native grass mix supporting the cow herd. \$5 registration fee includes dinner. Register at [vaforages.org/events](http://vaforages.org/events).

### Pasture Walk at Goose Hill Farm

May 31, 6:00–8:30 PM

10240 Augustine Herman Highway  
Chestertown, MD

Join University of Maryland Extension, NRCS, and Becky Davis for an educational pasture walk. Goose Hill Farm will share how they are currently managing and improving their pastures, and educators will discuss grazing management strategies for equine pasture systems. Registration is free but required at [extension.umd.edu/news-events](http://extension.umd.edu/news-events).

### Wednesday Webinars: Alternate Fertility Sources for Forage Systems

July 12, 12:00–1:00 PM

Ensuring proper soil fertility provides the foundation for a successful forage system. Commercial fertilizers are one option for providing nutrients but there are also other means for providing fertility to pastures and hayfields. This presentation from UMD Extension's Dr. Amanda Grev will discuss the use of alternative fertility sources, including manure, legumes, annuals, stored forages, and soil biological activity, along with some fertility considerations for grazed versus harvested forages. Register at [extension.umd.edu/news-events](http://extension.umd.edu/news-events).

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The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government or the National Fish and Wildlife Foundation and its funding sources. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Government, or the National Fish and Wildlife Foundation or its funding sources.

**Mission Statement:** The Mountains-to-Bay Grazing Alliance networks organizations within the agricultural community to support and encourage wider adoption of rotational grazing and related conservation practices that benefit water quality, improve soil health, and boost farm economies.