

MOUNTAINS-TO-BAY GRAZING ALLIANCE



October 2018

Virginia Grazing School a Success!

Written by David Fiske, Virginia Forage and Grassland Council

The Virginia Forage and Grassland Council concluded another very successful Grazing School on April 24-25, 2018.

This two-day intensive learning experience was hosted at Virginia Tech McCormick Farm, in Raphine, Virginia. Twenty-five farmers attended this school with levels of farm experience ranging between one to 30 years. These farmers collectively manage a total of 2,393 livestock on more than 5,100 acres of combined pasture and hay land.

The course focused on specifics and practical aspects of soils, forages, plant growth, grazing management, fencing, and managing livestock on pastureland in a way that increases production, improves pasture condition, and builds soil health.

The in-person training activities were supplemented with a wealth of printed publications and related handouts as part of a grazing school manual.

The grazing principles presented applied to everyone in attendance including those managing cattle, goats, sheep, and horses.

The course concluded with a one-on-one, hour-long planning session for each participant to meet with an instructor outlining their farm goals and summarizing farm information to develop a plan of action for their personal farm operation.

The participants learned the foundational principles of pasture and grazing management and left the school inspired

to put into practice what they learned to improve grazing management and overall soil and water stewardship on their farm.

The instructors of the school included experienced graziers and specialized members of the forage industry, including fencing professionals, Cooperative Extension agents, an economist, and NRCS and SWCD Conservationists and Grazing Specialists.



Grazing School participants learn to accurately assess and score pasture condition.

The participants enjoyed meeting each other and getting to know the instructors in this interactive and personal setting.

Course evaluations completed by the attendees show that the participants were very happy at the completion of the school.

Some of their comments include:
“This course was excellent, presented in a professional way, organized in a logical flow. The presenters allowed time for us to process the information, ask questions and it was coupled with practical application of the material in the field exercises.”

“I was able to learn how to determine proper stocking levels, forage management and grazing strategies.”

“Although I was currently using good grazing management practices, the different views of the instructors as well as some of the other students made me think about ways I could improve my operation. I plan to make modifications for better grazing results.”

Here are a few comments these participants shared for anyone thinking about attending one of the Grazing Schools:

“Whether you have been farming for years or just getting started, this school is rich with information for you to develop a plan, improve your management and enhance your profitability.”

“If you are serious about the nuts and bolts of grazing, plan to attend this school!”

“Attending this school was an amazing way to meet such knowledgeable consultants and other farmers with similar interests and goals.”

Every participant evaluation confirmed this school was worth their time and money to attend!

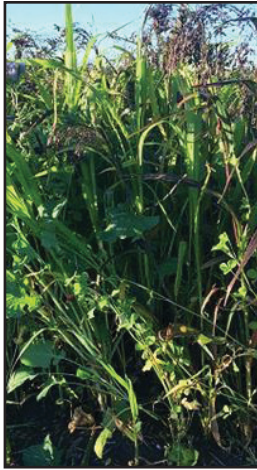
This grazing school was funded by the Chesapeake Bay Foundation through a USDA-NRCS Conservation Innovation Grant. The Virginia Forage and Grassland Council is offering a one-day advanced grazing school on October 25 in Broadway. See the Events section on the last page for more information.

The Importance of Soil Health for Increased Profitability

Written by Kevin Elmy and edited by Mia Campbell • Reprinted with permission from Gallagher North America

To say modern farming practices are complicated would be an understatement. Any farmer knows that in order to produce the maximum yield you require a large amount of capital and margins are relatively tight.

Due to the unpredictable nature of farming, many farmers are driven to tighten rotations and increase inputs. Producers are continuously monitoring their numbers to see what areas they can help reduce costs and drive up net margins.



One of the simplest ways to help drive net margins dollars is to improve the health of your soil. The term “Soil Health” refers to the ability of the soil to continue to function through different environmental conditions as a functional sustainable ecosystem which sustains plants, animals, and humans.

Although there is no defined measure of soil health, there are certainly indicators of healthy soil:

- The presence of earthworms
- Adequate water infiltration
- Proper nutrient cycling
- Good soil aggregation
- Healthy plant growth
- Productive economic yields

Improving your soil is a critical step in creating a food production system that will be economically and environmentally sustainable for years to come.

So how do we improve our soils? The bottom line is that **in order to make better, healthier soils you need to increase organic matter.**

This sounds simple enough, but how do you execute it?

On the land that Kevin Elmy purchased in 1999, the original owner had baled the straw

then burned the stubble for fifty years. The organic matter of the soil was under 2%—creating soil with poor water infiltration, low fertility, low yielding crops, no stress tolerance, and low tillage.

In 2015, from the last test, the soil organic matter was 6.2%. By using a combination of short-term forages, cattle corn grazing, winter cereals, reduced tillage, and cover crops, his soil health had improved greatly—driving yields up and improving profitability.

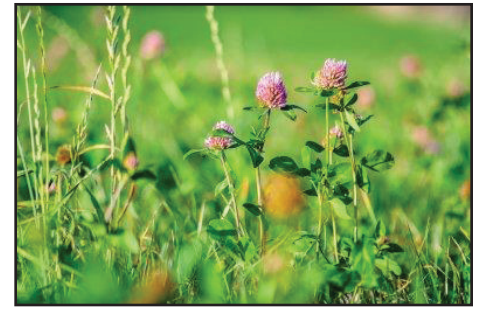
One key step to speed up the improvement of soil health is grazing animals on the land. With livestock, the majority of the macronutrients they ingest pass through them, making them relatively inefficient at processing nutrients but very efficient at fertilizing the soil. The quick return of nutrients in a plant-friendly state to the soil helps produce healthy plant growth along with a spike in microbial activity.

As a quick rule of thumb, plants that are eaten and passed through the animal will tend to stimulate bacteria over fungi. Plant materials, especially more lignified plants, will promote more fungal growth. By controlling the animals with electric fencing, the amount of residue can be managed effectively.

Land that is grazed too hard will leave very little residue, or soil armor. By not grazing hard enough you may have issues seeding the next year, or reduced palatability on the next grazing pass.

When looking at stimulating microbes in the soil, bacteria and fungi are usually scorned because they can cause disease. Like with any population, there are good guys and bad guys. Healthy soil will have checks and balances to keep these bad guys under control. Disease outbreaks tend to occur when these checks and balances are not in place, allowing the bad guys to dominate the population. A good diverse rotation replicating a more natural ecosystem will create microbial diversity, creating a healthy environment for microbial growth.

Another way in improve soil health is cover cropping. This refers to a cropping system that attempts to increase diversity in cropping rotation to ensure that grass,



legume, and broadleaf plants are utilized throughout the rotation. The inclusion of these functional groups will also help ensure good microbial diversity for the soil.

Cover cropping includes the following methods:

- Intercropping
- Relay cropping
- Full-season cover crops
- Pre-seed cover crops
- Post-harvest cover crops

When thinking about incorporating cover crops into a rotation, you need to set goals of what needs to be accomplished on your land. Different crops will do different things to the soil and microbes.

Ideally, a cover crop will fill the holes in a cropping rotation to ensure diversity of the plant types. The ultimate goal is to have plants growing throughout the entire growing season. The longer plants are growing, the more sunlight is captured, allowing the plant to create sugars, which end up back into the soil and capturing carbon.

By increasing the time plants are growing you increase the number of roots; more roots in the soil creates improved soil aggregation. Improved soil aggregation allows more spots for microbes in the soil and improved water infiltration. The more microbes in the soil and improved soil moisture retention, the more earthworms will appear. Having more earthworms creates more macro-pores in the soil and increases nutrient cycling which allow better plant growth.

Improved plant growth will increase organic matter in the soil and will improve the overall soil health. By grazing livestock on

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the land, time required to improve soil health decreases.

Each farm will have their own set of parameters that they need to address in order to improve their soil health—whether it is hard pan, low organic matter, low earthworm populations, or low nutrient cycling rates.

Once the system is developed for an operation, each field may have a slightly different cover crop blend, depending on where it is in crop rotation, soil type, nutritional status, and climate.

The idea of cover cropping is not just an organic thing or for livestock producers. It can be incorporated into any operation.

The key is to add diversity to the rotation, allowing more plant types to be grown. Healthy soils will produce healthy plants which will provide healthy food at a lower cost and risk.



Jay Fuhrer (Burleigh County Soil Conservation District) said it best a few years ago. The agricultural industry was talking about trying to maintain our soils. Jay argued, “Why should we be maintaining a degraded resource? Let’s make it better!”

Like anything, if it was easy and simple everyone would be doing it. Soil health management can be confusing and intimidating at first, but once you understand the basic principles of it the rest will fall into place.

Frost-seeding? Consider your Clover Options

Written by Joy Beam • Reprinted with permission from King’s AgriSeeds

Consider using the cold mornings in February as an opportunity to frost-seed your pastures with clover for more productive forages this upcoming spring!

Besides fixing 40-120 pounds of N/A/Year, these legumes increase animal performance while improving the palatability of forages.

This leads to an increased amount and quality of forage consumed. In beef cattle, pastures with clover produce significantly more pounds of beef per acre than those without, and the same translates to milk yields in grazing dairy herds.

What type of clover fits your operation best? There are multiple varieties of red or white clover to choose from for perennial pastures. Red clover is one of the fastest establishing legumes, tolerates more acidic soil, and can be similar to alfalfa in quality and yield when on the same harvest schedule.

Red clover may be less winter hardy than other clovers and is generally best for grazing or silage, but improved varieties such as Freedom!MR red clover can also be used for

dry hay and has better winter hardiness.

White clovers can be subdivided into three categories: short, intermediate, and large or ladino.

Short white clover is less productive and not commonly seeded into pastures. Intermediate white clover spreads prolifically by stolons while being tolerant to traffic and grazing. It is a high-quality forage that will not lignify in hot weather like alfalfa, red clover, or grasses. It also tends to be more persistent than red clover. However, it is a shorter clover that may be lower yielding than red or ladino clovers.

Use varieties such as Alsike for cool, moist, acidic soils, or Alice for vigorous spring and summer growth.

Large white clovers, commonly referred to as ladino, are the largest of the white clovers, growing 2-4 times the size of common white clovers.

Their strength lies in their aggressive growth habits that out compete weeds, and they



have larger leaves and higher yields than intermediate white clovers. However, they are less tolerant of grazing and traffic than intermediate white clovers.

Each clover has its positives and negatives—choose the one that works the best with the goals of your business.

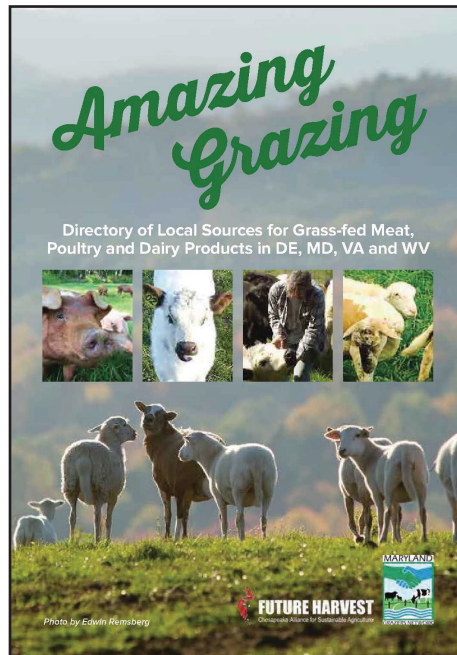
Grant Funds Awarded for “Go Grass-fed” Campaign

Written by Caiti Sullivan, Future Harvest, Chesapeake Alliance for Sustainable Agriculture

Future Harvest, Chesapeake Alliance for Sustainable Agriculture (CASA)—in collaboration with the Mountains-to-Bay Grazing Alliance, Central Farm Markets, Chesapeake Bay Foundation, Edible DC, Maryland and Virginia Extension, Maryland Farmers Market Association, and many graziers—has received a USDA Farmers Market Promotion Program three-year award of \$425,000 to conduct a robust multi-media campaign to boost consumer demand for local pasture-raised meats and other products in the Chesapeake Bay Region.

The project will breathe life into the Amazing Grazing directory of Chesapeake grass-fed producers, first compiled in 2015, by coupling a new, expanded edition with a suite of wide-reaching, innovative multi-media activities, consumer outreach events, and producer-focused programs. The campaign is aimed primarily at increasing demand for locally produced grass-fed meat, dairy, and eggs via consumer outreach and education.

“The project partners and Future Harvest CASA are excited to work together on what



we believe is a triple win for the graziers, consumers, and—via the proven soil health benefits of managed grazing—the environment of the Chesapeake region,” says Future Harvest CASA Executive Director Dena Leibman.

A multi-faceted consumer education campaign will increase the number of consumers informed about how, where, and why it’s important to buy local grass-fed products.

In addition to updating the Amazing Grazing directory of producers, we will pilot a Go Grass-fed Buying Club program, and launch a wide-reaching multi-media campaign promoting grass-fed products, including holding tasting events at popular farmers markets and festivals and at the October Burgers-n-Brews event on Claggett Farm in Upper Marlboro, Maryland, this year held on October 21.

At the same time, Future Harvest CASA and the Mountains-to-Bay Grazing Alliance will collaborate on programming for producers, including direct-to-consumer marketing training by the Future Harvest CASA Field Schools, a grazing mentorship program, six sessions devoted to grazing at the Future Harvest CASA annual conference (see the Events section for more information), an annual Graziers’ Summit, and much more.

Mountains-to-Bay Grazing Alliance Partnership



MARYLAND EVENTS

Burgers and Brews

Sunday, October 21, Noon–4:00 p.m.

Clagett Farm

11904 Old Marlboro Pike

Upper Marlboro

Join the Chesapeake Bay Foundation for its annual day of food and family fun at Clagett Farm, CBF's 285-acre working farm with a 250-member Community Supported Agriculture (CSA) program. Enjoy seven different food stations highlighting local, pasture-raised meats and dairy, and local vegetables. This is a family-friendly event with live bluegrass music, hay rides, and fun educational stations. Tickets range in price from \$10-\$50 and support CBF's programs. To purchase a ticket, visit cbf.org/events/burgers-and-brews.

Delmarva Soil Summit

Thursday, November 1

9:00 a.m.–5:15 p.m.

UMES–Student Services Center 15
East Princess Anne, MD

Join farmers, service providers, and soil health enthusiasts for a full day of learning from farmers and other experts about the latest innovations in soil health and fertility. Register at [Future Harvest CASA's website](http://FutureHarvestCASA.org).

Growing Our Future Harvest: 20th Anniversary Conference

January 17-19, 2019

College Park Marriott Hotel

3501 University Boulevard East
Hyattsville

The region's premier farm and food gathering is celebrating 20 years! Join Future Harvest CASA for deep-dive workshops (including a track on grazing), farm fresh meals, inspiring speakers, and farmer learning and networking. For more information, visit [Future Harvest CASA's website](http://FutureHarvestCASA.org).

PENNSYLVANIA EVENTS

Grazing, Cover Crops, and Soil Health Field Day

Wednesday, October 24

8:30 a.m.–Noon

Verdant View Farm

429 Strasburg Road, Paradise

Healthy soils lead to increased production, increased profits, and natural resource protection. Hear from the owner of Verdant View Farm, and staff from Penn State Extension and NRCS. For information, email meeghan.orr@pa.usda.gov.

Dairy Grazing Discussions

Thursday, November 15

Thursday, December 13

11:00 a.m.–1:00 p.m.

Valley Dairy, Latrobe

This series of lunch meetings will cover topics from *The Art and Science of Grazing*. The discussions aim to give a foundational overview of effective grazing management for dairy operations and strategies that help improve performance. For more information, visit the Penn State Extension website at extension.psu.edu/dairy-grazing-discussions.

VIRGINIA EVENTS

Farmers to the Bay Trip

Saturday, October 20 through

Monday, October 22

Join Chesapeake Bay Foundation to head to Port Isobel, its island education center in the middle of the Bay (near Tangier Island). Spend time with other farmers, local watermen, and agriculture partners to discuss ways to increase farmer bottom-lines and improve water quality. Meals, lodging, and boat fare are provided; carpooling is available. Contact Matt Kowalski at mkowalski@cbf.org to sign up.

Advanced Grazing School

Thursday, October 25

8:00 a.m.–5:00 p.m.

Tenth Legion Mt. Valley Ruritan

1037 Mauzy Athlone Road, Broadway

This intensive, one-day school is geared to producers who are backgrounding calves or raising replacements on pasture, as well as pasture-based dairy and finishing operations. For more information, visit Virginia Forage and Grassland Council's website at vaforages.org.

REGIONAL EVENTS

Regional Grazing Conference

Thursday, February 21, 2019

Washington County Agriculture Education Center

7313 Sharpsburg Pike

Boonsboro, MD

The Mountains-to-Bay Grazing Alliance is pleased to present Jim Gerrish at our regional conference. Jim's experience includes more than 20 years of commercial cattle and sheep production on his family farm in northern Missouri. The University of Missouri Forage Systems Research Center rose to national prominence as a result of his research leadership. Jim's research encompassed many aspects of plant-soil-animal interactions and provides a foundation for many of the basic principles of management-intensive grazing. For more information about the conference, email Michael Heller at mheller@cbf.org.

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