

## **Financial Impacts of Soil Health**

by Chris Clayton, DTN Ag Policy Editor

A new study highlights the potential longterm profitability increase from 15% to 25% for producers who embrace soil health or regenerative agriculture, but the study also points to barriers, such as revenue losses in that three-to five-year transition period.

The Boston Consulting Group released its report, "Cultivating farmer prosperity: Investing in Regenerative Agriculture," along with One Planet Business for Biodiversity, known as OP2B—a coalition of nearly 30 companies, including several in food production. The study makes the case that there is a business case for regenerative agriculture with longer-term profitability by converting farming practices.

Mitchell Hora, a farmer in southeast Iowa, said his family's operation has been no-till since 1978 but started experimenting with cover crops more around 2015. Initially, the Horas planted a cereal rye in fall 2015 then planted a corn crop into it in spring 2016. The family could tell a contrast in the growth rate of corn plants that suggested they planted the cereal rye too thick. They lost some corn yield in that field as a result, he said.

"We struggled in that initial part of that transition period," Hora said Wednesday in a livestream discussion about the report findings. He added, "We tried to push things too far, too fast in one year. The farm needed more agronomic support to better understand soil biology and what went wrong. Over time, their practices improved and they began to see more benefits. The Horas still plant corn and soybeans into cereal rye crops. Hora said the farm has lowered fertilizer use 50% in recent years and lowered pesticide costs 75% as well. Organic matter on the farm has increased 1.4% and the farm has gone more than three years without a crop insurance claim.

"Our yields are going up, our profits are going up. We're more resilient," he said.

Hora said his operation has shifted some of those costs to micro-nutrients and biological products instead of synthetic fertilizers. "For a lot of farms, it's risky to cut back on your fertilizer," Hora said.

Hora's experience fell much along the lines of what the Boston Consulting Group study found. In debating the need for regenerative agriculture, most groups see positive environmental benefits but companies saw a need to further look at economics on the farm, said Doug Petry, the report author. That led to conducting interviews with more than 100 U.S. farmers early adopters to get their perspectives.

Long-term, the report found farmers can increase both profits and crop yields up to

25%, but getting to that point also means producers can face increased expenses early on and potentially a decline in yield.

"We saw a need to further assess the farmlevel economic viability of transitioning to regenerative agriculture," Petry said.

Sonya Hoo, managing director and partner at Boston Consulting Group, pointed to the challenges in the transition period for producers due to costs for seed and machinery, as well as temporary yield losses. Farmers could lose anywhere from \$11.50 to \$39 an acre in transition losses.

"That transition cost and that dip in profitability in the first few years is very real and that's what we need to tackle here," Hoo said.

From those conclusions, Hoo said the study showed farmers require between three to five years of transition support to effectively make the move from conventional tillage farming to no-till and growing cover crops.

Citing some possible aid through the transition, the study said government programs, such as those through USDA's Natural Resources Conservation Service (NRCS), would be a "key bridge" for producers

(article continues on page 2)

#### (continued from page 1)

moving forward. Other options to support producers would be discounted loan rates or improved insurance terms. Price premiums naturally would help, but so would longterm land leases as well. Producers also need agronomic advice.

A few costs have been offset by some changes in policies in recent years. For instance, farmers got a \$5 insurance premium subsidy discount for 2021 and 2022 for soil health practices. Hora said that should be continued. He also suggested RMA should offset the premium costs for producers who use cover crops as well to raise their coverage to 85% coverage levels.

Asked about where Hora learned most of his cover crop information, he cited "YouTube university," pointing to videos from other producers on YouTube and other social media platforms. "There is a ton of information that is out there," Hora said.

The study comes as USDA is finalizing agreements under the Partnerships for

Climate-Smart Commodities, a \$3.1 billion effort to provide more incentives to producers to sequester carbon in the soil and lower emissions. USDA announced 141 potential partners and seeks to reach more than 60,000 producers and 25 million acres of farmland. Each of those programs is expected to provide farmers with more financial and technical support to transition their farms.

USDA also has released more funding directly to producers through the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP) because the Inflation Reduction Act last year provided USDA with \$19.5 billion to help increase conservation practices that reduce greenhouse gas emissions or sequester carbon in the soil.

Private companies also are expanding their various carbon credit or regenerative agricultural programs. Cargill recently announced it would expand its RegenConnect to nine more states as well as parts of Europe this year. Indigo Ag is now working with more food companies to help reduce carbon



An lowa farmer shows off soil on his farm, pointing to the structure and water holding capacity after growing cover crops.

emissions in their agricultural supply chains known as Scope 3 emissions. TruTerra announced recently that it paid farmers \$5.1 million to sequester the equivalent of 262,000 tons of carbon last year.

A link to the full study, "Cultivating farmer prosperity: investing in Regenerative Agriculture," can be found at <u>wbcsd.org</u>.

Copyright 2023 DTN LLC. Used by permission.

### Weaning Pasture Soils Off Chemical Dependence

#### by Lee Rinehart, NCAT Sustainable Agriculture Specialist

I recently received an email from a farmer in New England. They have put a lot of effort into their beef farm to bring their soil to life after decades of conventional corn and hay production with substantial chemical inputs.

They have been working to improve the health of their pasture soils by overseeding with clover and rotationally grazing and have begun a regime of applying organic amendments to help stimulate microbial activity. In their words, they are "weaning their soils off chemical dependence," even if at times they feel like they are "shooting in the dark."

I feel that way a lot. Shooting in the dark. Many of my consultations with farmers and graziers over the years have taken on this quality. But really, what is happening is we are having a conversation about a complex living ecosystem that we barely understand. What I have learned is good grazing comes from experience. And experience is informed by observation and science. For this most recent conversation, we started off with the idea of kickstarting the soil biological community. The single most beneficial way to do this is to increase soil organic matter. After all, it is what soil bacteria eat. This is the best way to build aggregate stability and lower soil bulk density. It turns the soil from a brick to a sponge.

A good way to do this inexpensively is bale grazing with livestock in high density for a short period of time, somewhere above 100,000 pounds of liveweight per acre (this is highly variable). Bale grazing is an excellent way to build soil over time and is especially useful on pastures in the dormant season or for renovating poor performing fields during the grazing season.

An intentional, planned disturbance of short duration with a long rest period for full plant recovery disturbs the soil surface with hoof action, pushes plant residue close to the soil surface for rapid decomposition, and distributes manure and microorganisms from the animals' saliva and haircoat. Think of it as biological priming for soils.

Sometimes a grazier will ask about planting improved species. After all, when they look across their fields they see a scattering of annual forbs, perhaps the resilient stalks of perennial weeds, and short, closely cropped perennial grasses holding on for dear life. It makes sense though to think about planting better grasses.

The logic is sound, but I have learned that this seldom works and can be extremely expensive. For success it just about means farming the field... some kind of tillage, weed control, fertilizer, and water. And it takes time. A grazier can drain their savings account in one season farming this way. Farming is risky enough without adding to our debt load.

Then I learned how many seeds are just sitting in the soil, waiting for the opportune

(article continues on page 3)

#### (continued from page 2)

time to emerge. Sure, there are lots of weed seeds. These are often the first to emerge and they do this for a reason. The annuals come up and provide soil cover, a band aid, the first step in healing damaged soil. But this is the time to use animal impact and see if we can release the native seedbank and get the good stuff to emerge.

For the beneficial grass and forb seeds to germinate and grow we need disturbance. But I don't mean tillage, I mean the kind of disturbance I described above. Getting organic matter into the soil will help to increase water infiltration, it will make mycorrhizal fungi and bacterial populations explode in numbers. It will create aeration, little passages in the soil for air and water to pass through.

I was talking to Allen Williams a few weeks ago and he mentioned something that made me think. These little channels, caused by soil aggregation, earthworms, and dung beetles, provide a passage for deeply buried seeds to travel up closer to the soil surface where they can germinate.

Think about it... when water infiltrates, the seeds that are buried deep in the soil profile have a route to float up and get within the germination zone. Perhaps this explains what I have seen after a few years of grazing with thoughtful disturbances—fields that become highly diverse and productive with plants I didn't even know were present in the seedbank.

So that's one way to establish a better forage stand. Another way that graziers have been using for years is frost seeding. Remember, frost seeding is when we broadcast a small seeded species in the late winter when the soil is undergoing a sequence of freezing at night and thawing in the day. This action serves to pulse the soil surface ever so slightly to help cover small seeds with soil over the course of a few days or weeks, allowing them to germinate when the temperature gets to around 60 degrees F.

Red clover works well for this, as does white clover and many other small-seeded legumes. Grass seeds are larger and because of this frost seeding is seldom recommended for establishing grass stands, though I know people who have tried it. If you are making your frost seed decision late, you can perhaps



mimic the freeze-thaw action by turning livestock into the pasture after broadcasting seed and let them trample it in.

Some other things came to mind as I was talking to this grazier, logistical things to help ensure their animals could provide the impact they needed them to perform when they needed it.

One was to ensure their watering systems are portable to give more control of paddock use. It is much easier to time the grazing and rest periods of paddocks when water access is not an issue.

Another is to use polybraid and step in posts to strategically enclose paddocks and try to match herd weight (the herd dry matter intake requirement) with the forage available. As a rule, I have adapted the old adage "take half leave half" to "take half trample half."

The ATTRA publication <u>Paddock Design</u>, <u>Fencing, Water Systems, and Livestock</u> <u>Movement Strategies for Multi-Paddock</u> <u>Grazing</u> goes into detail on water and fencing so I'll direct you there if you'd like more on these and other logistical concerns.

Finally, make grazing decisions based on observation of impact on previous fields and the needs of the current field based on goals (animal productivity, weed pressure, renovation, need for incorporating organic matter, going on vacation, etc). And try not to re-graze a field until the plants have fully recovered. This is the cardinal rule in grazing.

And never do the same thing on a paddock season after season and year after year. Nature is fickle and changes things up regularly. Mimicking nature in this way opens the opportunity for various things to happen, from new forages appearing in the fields to providing wildlife habitat for ground nesting birds. Change it up, observe what happens, and try to capitalize on nature's methods.

Getting off chemical dependence, and in this case synthetic fertilizer, is achievable in pasture systems. Instead of ammonium nitrate, we rely on nitrogen from mineralization and legumes. Soil aggregation is key. After the soil has begun to wake up and nutrient cycling is running at optimum, you can start the weaning process.

I like to recommend Christine Jones's regime for doing this: 20% reduction in the first year, followed by two years of additional 30% reduction, culminating with two years of minimal applications of about 4.5 pounds per acre<sup>1</sup> to jump start the grazing season. Many have gone cold turkey and it has worked. But those graziers have been doing regenerative soil management for decades. My advice is to add organic matter, build aggregation, and go off fertilizer slowly.

Reference:

1) <u>Nitrogen: the double-edged sword</u> Christine Jones, Amazing Carbon

Further Resources Toolkit: How to Reduce Synthetic Fertilizer Use ATTRA Sustainable Agriculture

Adaptive Grazing—You Can Do It ATTRA Sustainable Agriculture

The Soil for Water Forum NCAT Soil for Water Managed Grazing Tutorial ATTRA Sustainable Agriculture

<u>Healing Battered Fields, Pastures with</u> <u>Adaptive Grazing No-Till Farmer</u>

### **Spring Drought Forage Recommendations**

by Tim Fritz and Kody Umble, King's AgriSeeds

The majority of the region that King's AgriSeeds serves is very dry. Until this current weather pattern is broken, we remain in a dry pattern that will have a strong impact on our crops and forages.

Winter annual forages such as triticale and rye yields were down, spring forage crops such as oats are way down in yield, and our perennial grasses are beginning to go dormant. If we don't get rain soon, alfalfas will soon be impacted as well. The new corn crop is also being impacted. To put it bluntly, we need rain!

Myself, along with most in agriculture are optimists and we know will get rain again at some point. But the question remains: How do we prepare as forage supplies tighten on our farms?

#### Manage What You Have Established and Is Already Growing Well.

For Perennial Crops: Slow the harvest down whether you are grazing or making hay. After you cut a perennial crop the roots will die back (this is especially true of the grasses), allowing less reach for what little moisture is in the soil. Higher cutting heights will retain more roots than crops that are cut low! But you may want to consider letting the crop get more mature as well to increase yields. Quality will be reduced by waiting, but consider your yield needs as well. For pastures, utilize a sacrifice area or consider barn feeding to allow the perennial pasture to rest until adequate regrowth occurs. This could be for 60 days or more if the weather pattern does not change.

For Spring Annual Forage Crops: What is your need of yield verse quality? If yield is more important than quality, consider harvesting at boot stage rather than flag leaf. Since these crops are typically one cut, it is ok to cut low but if high amounts of nitrogen were applied, cutting low could increase nitrates if they are an issue.

For Corn: Some corn fields look a little thin but not too thin. Manage weeds and don't worry about a less than ideal population, especially if you planted a semi-flex or flex hybrid. As the season progresses further into July, the total yield potential from fields replanted overall goes down. Most



of our KingFisher and Red Tail hybrids will compensate for less than ideal populations. Replanting in dry conditions can be very risky.

For Summer Annual Forage Crops: If you already have a crop growing, wonderful! As a whole, summer annuals are much more water efficient. Be cautious on applying too much nitrogen, especially without sulfur. Too much N has potential to create high nitrate forage. Keep this in mind if considering planting a sorghum into a failed corn stand. Typically high levels of N are applied to corn fields, which can lead to nitrate issues if a sorghum is planted. Also know the herbicide history, if going from a failed corn stand to a sorghum. Some herbicides that were applied to corn may have long residuals which may result in a poor sorghum stand.

#### New Seeding to Make Up for Yield Loss.

Planting summer annuals is the best choice and will remain the best choice until early August. Summer annual grasses are very water efficient compared to virtually all other forage options. However, to be successful, summer annuals must be planted into adequate moisture! Below are the maximum planting depth recommendations for our area for summer annual grasses (in order of preference of planting in droughty conditions). The bigger the seed, the deeper you can plant, which reduces your establishment risk during dry weather. Smaller seeds can work but understand the risk level is greater.

Sorghum sudans and sorghums: up to 1 1/2 inch

Sudangrasses: ¾ inch

Millets: ½ inch

Teff and Crabgrass: Surface packed into moisture 1/8 inch to 1/4 inch

#### **Further Seeding Tips**

For No-till: If there is moisture in the seed zone and deeper, plant as soon as possible while there is still moisture! You will likely need additional weight on your drill to plant to the desired maximum depth. If your soil seed zone is already dry, hold off from seeding until a solid rain event occurs. Seeding into a dry seed bed is risky with relatively small seeds.

For Conventional Tillage: You may have enough moisture below the surface, if so till, pack firm, plant, and pack again! Do not delay as the soil will dry out! The soil should also be worked to the appropriate fineness for the crop chosen. The smaller the seed the finer the soil must be worked in order to give good seed to soil contact! If your soil is already dry, delay seeding until there is strong moisture in the seeding depth zone (and deeper at this point!) to get the crop established. You should consider having the seed on your farm ready to go for when it rains.

Knowing what is going on in your fields is critical in decision making. The only way to know what is truly going on is to scout your fields and keep records as to what you find in each field.

We wish you the best in your drought management and let's trust that the weather will come into a favorable balance in the very near future.

# Why Adaptability is Key

### by Lucas Waybright, Dairy Grazing Project Manager, Pasa Sustainable Agriculture

This April I organized a field day for our <u>Dairy</u> <u>Grazing Project</u>—a collaborative effort led by Pasa to help dairy farmers improve, expand, or begin grazing.

Since graziers are regularly monitoring their pastures, they need flexible equipment that allows them to quickly adapt in response to the needs of the herd and the land.

Farmer Eli Mack of <u>Mack Farms</u> and Kencove Fence Supplies shared his expertise with our crowd of 40-plus dairy farmers at Benuel Blank's farm in York County, Pennsylvania.

Eli discussed grazing infrastructure, including moveable fencing and watering. Both of these systems are critical for success in rotational grazing. He also shared his grazier philosophy: "When it comes to building a system to meet your farm's goals, the only limiting factor is your creativity."

I got to see some of that grazier creativity in action after the event. I spent a little extra time with our host, Benuel Blank, who grazes 35 milking cows and some heifers rotationally through his 80-plus-acre farm.

Ben told me about an experiment he is conducting.

He has a steep, four-acre pasture along his driveway. The last graze on this field was in November of 2022. Ben plans on only grazing two of the four acres in this field once in August of this year, and leaving the other two acres to be ungrazed until spring 2024 creating an extra-long rest period (a full growing season plus two winters).

Inspired by <u>Allen Williams'</u> principles of adaptive management, which include purposeful disruptions to the land to enhance natural cycles, Ben's curious about how the diversity and ratios of plants will change in a pasture with a long and an extra-long rest period.

We walked the field together, and I wrote down all of the plant species we observed from most frequent to least. This field was last seeded in 2020 with orchard grass, clovers, and alfalfa using a no-till drill.

Plant species observed:

- 1. Bluegrass (observed most frequent)
- 2. Shepherd's Purse (frequent)



Eli Mack (ball cap) of Mack Farms shared his expertise in moveable electric fencing.



Farmer Benuel Blank shares a map of his grazing paddocks to demonstrate how he uses fencing infrastructure for pasture management.

- 3. Orchard Grass (some)
- 4. White Clover (some)
- 5. Chickweed (some)
- 6. Dandelion (some)
- 7. Red Clover (little)
- 8. Alfalfa (little)
- 9. Buttercup (little)
- 10. Aster (occasional)
- 11. Tumbleweed (occasional)
- 12. Broadleaf Plantain (occasional)
- 13. Violets (occasional)
- 14. [unidentified grass 1] appeared to be rhizome-based (occasional)
- 15. Bull Thistle (occasional)
- 16. Fescue (occasional)
- 17. Curly Dock (occasional)
- 18. Henbit (occasional)
- 19. [unidentified grass 2] appeared lush and desirable (occasional)

Ben included a caveat that seeing out the extra-long rest period for this pasture experiment is somewhat dependent on what kind of summer we have. If it's a dry year and grazeable acreage is at a premium, he might have to graze the full trial pasture.

When it comes down to it, the goal of the experiment is to improve the health of the

herd, so once again that grazier's adaptability to the conditions remains key.

But if all goes well, I plan to do this plant survey again after Ben grazes his herd on part of this pasture this August, and on the full four acres next spring.

Stay tuned for updates and insights from this farmer-led field research!

#### ~~~~~~

Whether you're an experienced grazier seeking a better price for your milk, a conventional farmer only beginning to think about how grazing might support your operation, or fall anywhere in between, Dairy Grazing Project can help. Visit <u>dairygrazingproject.org</u> to learn more.

Dairy Grazing Project Partners: Pasa Sustainable Agriculture, Center for Dairy Excellence, Ephrata National Bank, Mad Agriculture, Origin Milk Company, Rodale Institute, and TeamAg. This project is supported by a grant from the National Fish and Wildlife Foundation.

## West Virginia Dairy Transitions to Sheep

by Rachel Wagoner, reprinted with permission from Farm and Dairy

GREENVILLE, W.Va. — It wasn't Aaron and Tara Helmick's dream to have sheep, let alone several hundred of them, although the ewes and lambs do look at home on the grassy slopes of their southern West Virginia farm.

Dairy was Aaron's dream and, on paper, it was the most profitable part of their operation.

Continuing to milk made sense financially, but other parts of life for the first generational dairy farmers weren't adding up.

"It wasn't like, this is awful and we hate it, but we were getting burnt out and not really seeing it because we'd done it for so long and been in the industry for so long, we didn't know what something else looked like," Tara Helmick said. "We put a lot of stock in our faith in God in leading us through those things."

They bought their first 50 bred ewes in January 2019. By the end of the year, they had 500 ewes. They quit milking in January 2020.

The sheep numbers made sense for the budget and for the vision of what their life should look like.

"My wife's part of the dream was she wanted her kids to grow up on the farm with their parents there not working jobs off farm," Aaron said. Sheep allowed them to do that and more.

#### Growing up

Aaron and Tara met in college at West Virginia University. She was a freshman and he was a senior when Tara took a job at the university dairy.

"They were looking for a sucker to take the cows to the state fair," she said. "I didn't know why no one wanted to do it, so I said I'd do it." Aaron was a sucker too, apparently, and also went to the fair with the university cows. That's how the two met.

Tara grew up near Morgantown, West Virginia, on a small commercial cow-calf beef farm.

Aaron did not grow up on a farm, but he was always around them. He worked on



neighboring farms, eventually earning enough money to buy his first show calf when he was 12. He worked in exchange for board for the calf at a dairy up the road. After college he worked at dairies around the region.

They got married in 2009. The newlyweds rented a dairy in Hans Creek Valley in Monroe County and began building a life, business, and family together.

Their dairy was a low input grazing system because they had the land base for it, Tara said. They transitioned to organic in 2015, selling their milk to Organic Valley. The most cows they milked at one time was about 120, Tara said.

The couple rented an apartment at the dairy and then moved into a trailer on the property. When the opportunity came to buy a small farm minutes away from the dairy, they took it.

"The dairy was very good to us," Aaron said. "It really helped us in regard to giving us an equity springboard. It put us into land ownership and home ownership."

Their son, Andrew, was born in 2011. He's nearly 11 now. Three more children would follow: daughter Lainey, 7; son, Graham, 5; and son, Emory, 2.

#### Breaking point

Things began to change in 2018. They were approaching the end of their 10-year lease on the dairy. It was time to reevaluate. Would they keep milking there or try to find other land and build a new facility? At the same time, they needed to grow.

"We had to increase the size of the dairy to maintain the living standard," Tara said. "We're not rich fancy people by any means, but to be able to afford a living and afford help."

Help was already getting harder to find. Aaron was taking on more and more at the dairy and was slowly burning out. He was physically present for all his children's big life events, but he wasn't mentally present, he said.

The final straw came when they thought they'd found a man to take over the daily dairy operations. When he backed out at the last minute, they realized how much they'd been counting on this new person being there to give them some relief.

They'd already been looking around for other opportunities in agriculture that would bring in a similar income for their land base. Something with more flexibility and less labor. Something their children could be involved with. Something to fix their "people problems," as Aaron called it. Sheep seemed to be a solution to those problems.

#### Sheepish beginnings

The ewes came to the farm a week before Aaron and Tara left for two weeks to attend the Ranching for Profit school in South Dakota in early 2019. They left Tara's parents and their children to handle lambing, which they did with relative ease.

(article continues on page 7)

#### (continued from page 6)

Everything went so well, Aaron decided to get more sheep. They were getting mostly Katahdin hair sheep in from various flock dispersals or other sales. Buying a large group often yielded a better deal per head. Culling could be done as they went. By the end of the year they had about 500 ewes.

Unfortunately, subsequent lambings were not as painless.

"It's more like what didn't go wrong," Aaron said.

They lost a bunch of lambs to parasites. Another time they had issues with sore mouth and foot scald. Their second big lambing, in February 2020, it seemed like things were going well until the rain hit. Their valley received 8 inches of rain in 30 hours. The stockpiled pastures the ewes were on turned into mud. They lost a couple hundred lambs and dozens of ewes during and after that weather event.

After that, they bought Easycares, a composite hair sheep breed developed in Nebraska, to replace many of their Katahdin ewes. That helped some of their issues with mothering ability and hardiness. They also improved their systems for feeding and lambing.

#### Marketing

The Helmicks went to the Ranching for Profit school with a mind to help figure out their dairy problem. They've always treated the farm like a business, but they wanted to take it to the next level. Ranching for Profit helped them do that.

"I tell people, don't go unless you're ready to have your life changed," Aaron said.

While the dairy was paying the bills, it wasn't helping them meet the mission and vision for their life and family. They transitioned out of the dairy over a year, breeding the dairy cows back to beef bulls and eventually selling the cows. The lessons they learned in the school helped them shape their new sheep enterprise.

They're primarily a grass and grazingbased system. Ewes lamb on pasture in the spring with minimal assistance. Aaron or his employee check the flocks and feed the livestock guardian dogs once a day. A portion of their lambs are finished out as feeders in the old dairy barn. Lambs are weighed once a week. If enough hit 70 pounds, the target weight for their local market, they send a load out.

Instead of aiming for the Easter market, Aaron sells lambs the rest of the year to avoid the flooded market that pushes prices down. He primarily markets lambs from November through March. They send lambs to the auction about 40 weeks out of the year.

They also market around "people events."

"We had a barn full of lambs feeding last summer," Aaron said. "We wanted to go on vacation. We had other people who wanted to go on vacation. I called a buyer and said, 'What's your price? We negotiated."

They were up to about 700 ewes, but recently sold some because they had a buyer and the price was right. Even with all those sheep, they still have extra grass so they bring in stockers and bred cows if they're the right price to create extra income.

"I don't think we've even scratched the surface in grazing with the sheep because we're still trying to figure out the infrastructure," Tara said. "We could support many more hundreds or a couple thousand more head with improved grazing."

The sheep are the centerpiece of their operation right now, but they remain flexible. At the end of each year, they take stock of their entire business.

"If we could walk away today, how much cash would we have, and what would we do with it?" Aaron said. Would they buy into their business again next year?

Then they lay out their options on a flip chart page, something they learned from the Ranching for Profit school. Rental property, mutual funds, feeder lambs, buy more ewes, pay off all operating debts. The page shows that flipping houses would bring the biggest return on investment.

"But you can't eat off of assets," Tara said.

The sheep business remains the winner for the way family, life and business intersect.

Reporter Rachel Wagoner can be contacted at 800-837-3419 or rachel@farmanddairy.com.

### Future Harvest Now Accepting Applications for Annual Winter Conference, Nourish & Flourish: From the Ground Up

Future Harvest is currently accepting workshop proposals for their 25th annual winter conference, which will take place January 18-20, 2024.

Regenerative practices and soil health are top of mind at this organization so they are always seeking passionate knowledgeable speakers.

Session proposals can be for informal farmer-to-farmer chats, in-depth preconference sessions, panel discussion ideas, or focused 60-minute talks.

The deadline to submit a proposal is August 1, 2023 and speakers will be notified by October 1, 2023.

The 2024 conference theme is Nourish & Flourish: From the Ground Up and will take place at a new location: The Hotel at UMD in College Park, MD.

Visit <u>futureharvest.org/2024-</u> <u>conference</u> for more information about the event and information on how to submit a proposal.



# Capital RC&D and Lykens Valley Bison Host Field Day

### by Cheryl Burns, Capital RC&D

On Friday, June 9, Capital RC&D and Lykens Valley Bison hosted a pasture walk at the Lykens Valley Bison farm in Millersburg, PA (Dauphin County). Forty-six individuals participated with representation from three states and 10 counties within Pennsylvania.

The discussion focused on infrastructure for large grazing animals, rotational grazing systems, and even touched on the possibility of using grazing for grass management in nesting bird areas.

Duane and Kimberly Stroup, along with their son Alexander, started Lykens Valley Bison in 2021 with a single paddock and have since expanded to approximately 50 acres of pasture.

To help facilitate grazing their herd of 14 bison, they installed six-foot-tall, eightstrand, high tensile electrified fencing and a watering system that includes energy free waterers and frost-free hydrants that ensure year-round water access.



Capital RC&D & NRCS worked together to provide financial support from both the EQIP Program and a Capital RC&D grant to help with the implementation of the rotational grazing system.

The event wrapped up with a meal prepared by the Lykens Valley Bison food truck. The food truck is a marketing tool used by the farm to sell their bison and pork products by setting up at neighboring businesses and festivals throughout Central Pennsylvania.

This event was sponsored by Capital RC&D through partnership with the Stroud Water Research Center and with funding through a National Fish and Wildlife Foundation Chesapeake Bay Small Watershed grant.

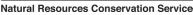
To learn more about Lykens Valley Bison farm, visit their website at lykensvalleybison.com.

Visit CapitalRCD.org for more information about grazing support programs and upcoming events.















Pasa SUSTAINABLE AGRICULTURE

Pennsylvania

**Grazing Lands** 

Coalition

Virginia Cooperative Extensior





CHESAPEAKE BAY

FOUNDATION

Saving a National Treasure



GRAZERS NETWORK





Virginia Tech Virginia State University w.ext.vt.edu



### **UPCOMING EVENTS**

Harvest Home Farms Pasture Walk July 18, 9:30 AM-2:00 PM Meet at the Ott Environmental Learning Center, 740 Orchard Road, Mt. Bethel, PA Join Pennsylvania Grazing Lands Coalition for this multi-site pasture walk. Visit two rotational grazing sites followed by discussion about rotational grazing practices, infrastructure, pasture soil health, and the challenges of grass finishing. Lunch will be served following the event at the Jerry Brunetti Environmental Center. Register by visiting paglc.org/events-calendar/.

#### Regenerative Grazing, Silvopasture, & More July 19, 7:30 AM-5:00 PM Porch View Farm

2790 Florence Road, Woodbine, MD

Join The Million Acre Challenge for a multi-faceted, on-farm learning experience. Farm owner Keith Ohlinger will share his experience implementing practices like silvopasture, rotational grazing, biochar, composting, keyline planting, and more! After the included lunch, we'll hear from Sam Engler, Howard County NRCS District Conservationist, to find out more about state and federal funding opportunities. Registration costs \$20. Visit <u>futureharvest.</u> org to sign up.

#### Diversify Your Cover Crops July 25, 1:00–3:00 PM Swaine Farm

5998 Bellevue Road, Royal Oak, MD

This field day will focus on cover crop planning, species selection and management, and practical considerations. There will also be demonstrations of in-field soil quality tests. Register by visiting <u>extension.umd.edu/news-</u> <u>events/events/event/7636/diversify-your-</u> <u>cover-crops-farm-series</u>.

Increasing Profits through Rotational Grazing with Rabbits

July 25, 10:00 AM-12:00 PM Lake Country Advanced Learning Center 118 East Danville Street, South Hill, VA Tammy Holler, VSU-SFOP Nutrient Management Specialist, will discuss how planting cover crops suitable for rabbits can improve the health of your soil. Register at web.cvent.com/event/5849b709-792c-49d1-86d2-97601eb93e76/regProcessStep1.

#### Pasture Lambing Workshop July 28, 9:00 AM–4:00 PM VSU Randolph Farm

4415 River Road, Petersburg, VA The day-long workshop introduces sheep producers to pasture lambing and provides hands-on exposure to activities associated with lambing. Registration fee of \$25. Register at <u>ext.vsu.edu/events/2023/07/28-</u> pasture-lambing.

#### Bee-Friendly Beef Producer Workshop August 3, 9:00 AM-3:00 PM Smithsonian Conservation Biology Institute Front Royal, VA

Virginia Working Landscapes will be hosting this workshop and field day. Morning lectures will highlight results from research integrating wildflowers into grazing systems—including presentations on restoration success, forage quality, consumer preferences, and pollinator responses, and will also include case studies from several participating research farms. In the afternoon, head over to a demonstration farm to see one of the bee-friendly beef fields in action. Register by visiting <u>eventbrite.</u> <u>com/e/621146033507</u>.

#### Agroforestry Farm Tour August 4, 9:00–11:00 AM

What The Farm, Virginia Beach, VA Chris and Kelly Shepherd incorporate farming and grazing practices that rebuild the soil organically while restoring degraded soil biodiversity in hopes to improve soil health. Register at web.cvent.com/event/4cc9014c-33b0-4d43-9036-2526a5fe7cb4/summary.

#### Soil Health and Organic Fundamentals August 8, 2:00–3:30 PM, Virtual

The Virginia Soil Health Coalition is hosting a 3-part soil health webinar series led by Mark Schonbeck. The first installment is on soil health and organic fundamentals. Mark Schonbeck has worked for 31 years as a researcher, consultant, and educator in sustainable and organic agriculture. Stay tuned for the second webinar in the series coming in late August. For more information and to register, visit <u>virginiatech.zoom.us</u>.

Pasture Walk August 21, 6:00–8:00 PM Leaning Pine Farm 14611 Mile Lane NW, Mount Savage, MD Join University of Maryland Extension, NRCS, and the owners of Leaning Pine Farm for an educational pasture walk. The farm owners will discuss finishing animals on pasture and marketing strategies. Register by visiting extension.umd.edu.

#### Extending the Sheep & Goat Grazing Season August 31, 7:00–8:00 PM, Virtual

During this virtual pasture walk, we will look at ways to improve your pastures, increase carrying capacity, lengthen your grazing season, and lower grazing expenses for sheep and goats. Register at web.cvent. com/event/47376dd4-3fa9-4fd1-9ff2-94ae81b6ccb5/summary.

#### Launching an Agroforestry Project September 6, 1:00–3:30 PM Wild Fox Farm

1736 PA-100, Bally, PA 19503

Experience Wild Fox's agroforestry journey and begin to develop your own plans for establishing or expanding trees and shrubs at your site. Bring comfortable walking shoes and all of your agroforestry questions! Registration costs \$10. Visit <u>pasafarming.org/</u> <u>event</u> to sign up.

#### Virginia Cattlemen's Boot Camp October 6, 6:30–8:30 PM October 7, 8:00 AM–4:00 PM Alphin Stuart Livestock Arena, Blacksburg, VA

The Boot Camp will include a variety of relevant and essential topics that the cattle industry faces today through hands-on experiences. Topics will include: herd health, nutrition, reproduction, and operational management. Register at tinyurl.com/ CattlemenBootCamp.

Ranching for Profit Workshop October 10, 9:00 AM-October 11, 4:00 PM, Best Western Plus Waynesboro 109 Apple Tree Lane, Waynesboro, VA Dallas Mount will be the professional instructor at this 2-day advanced workshop. Learn the three secrets for increasing profits and the economic leveraging of grazing. Workshop registration costs \$100 for one day and \$150 for two. Visit vaforages.org/events for more information and to sign up.

This material is based on work supported by the U.S. Environmental Protection Agency (Assistance Agreement No. CB96358101) 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.

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.