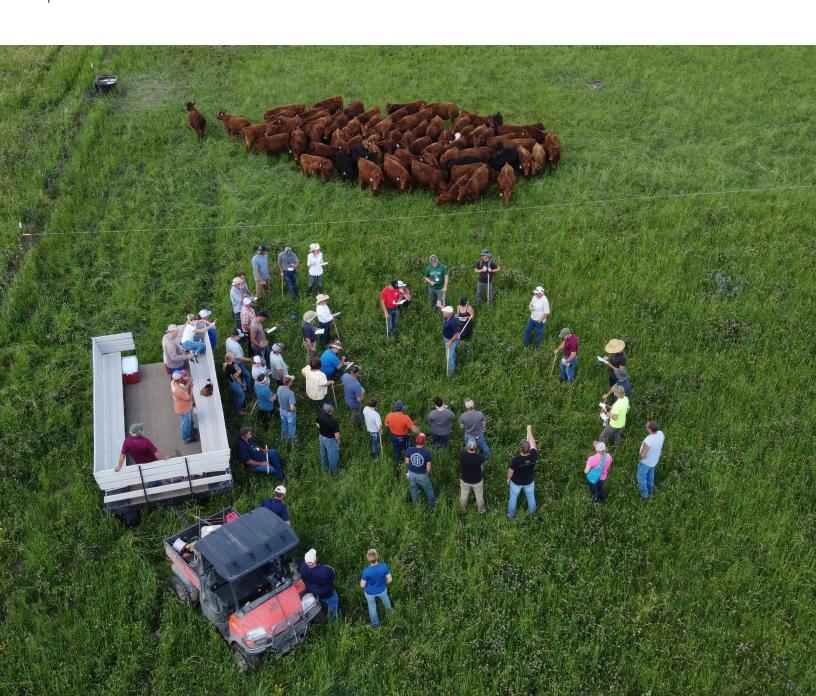


# **2021 Annual Report**

Soil Health Academy



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# **Soil Health Academy's Mission**

The Soil Health Academy mission is to teach and assist farmers and ranchers in applying time-tested, ecological principles and biomimicry to regenerate our living and life-giving soil. In restoring the health of our soil's ecosystem, we will restore the health of our bodies, our farms, our communities, and our planet.



# **Letter from the President**

### Dear Soil Health Academy friends and graduates:

This is my first year to serve as president of the Soil Health Academy, and with that new title comes the honor of writing the introduction to our annual report. I'd like to take this opportunity to highlight a few of SHA's most notable accomplishments in 2021 and acknowledge those who paved the way for and who continue to support our regenerative education efforts moving forward. Importantly, I'd like to thank all of you who have put that education and understanding into soil health-improving practices on your individual farms and ranches.

### In the footsteps of a legend

In the fall of 2021, Soil Health Academy co-founder David Brandt stepped down to focus more of his time on his family's farming operation. I must admit that it has been both humbling and somewhat intimidating to follow in the footsteps of a soil health legend. I have some very big shoes to fill but I believe the regenerative ag educational opportunities SHA provides is especially critical today—for our struggling farm families and for our climate and environment. Along with my fellow SHA board members, I look forward to carrying on and expanding David's important legacy into the future.

By the way, be sure to visit SHA's YouTube channel to view David's 17-part interview on his personal regenerative soil health pioneering journey. You'll laugh and you may also shed a tear or two, but you're certain to be inspired by the wit and wisdom of "The Godfather of Soil Health."

### 2021 highlights

Like many other organizations in 2021, COVID continued to have an impact on our planning and delivery of SHA's schools. But thanks to the dedication and tenacity of our faculty and staff, we delivered four, three-day schools and two dairy/grazing-specialty one-day workshops, all of which were well attended.

Through our on-going partnership with Understanding Ag, Regen Ag 101 is expanding. Regen Ag ONLINE has now become the umbrella moniker for a growing number of regenerative agricultural virtual courses, the latest of which is Regen Ag Adaptive Grazing and Regen Ag Cropping strategies. The latter is now available. To date, Regen Ag 101 has nearly 700 subscribers from 37 countries around the globe and we're just getting started.

In the pages that follow, you'll find several feature articles, including one on the launch of "Shop Regen Foods," an online portal that connect consumers seeking regeneratively grown products with SHA's graduates. You'll also find the results of our third annual graduate impact survey, details on key SHA events, a story on SHA co-founder Gabe Brown's Heinz Award for the Environment and offerings from the past year—as well as several follow-up articles on some of our graduates.

While the graduate impact survey numbers are impressive and underscore the efficacy of our teaching model and curriculum, learning how SHA's schools and instructors have made a positive difference in some of the lives of our graduates is especially gratifying. In this report, you can read about three graduates who are at different points in their regenerative journey—and all of whom illustrate the positive tangible impact of our schools and instructor cadre.

These personal stories, and our continued relationship with all of you, keep us inspired to do even more. I'm thankful to those who continue to share your stories with us and send us notes and photos from your respective farms and ranches—and I'm also thankful to all of you whose stories of regeneration we've yet to hear.



Throughout 2021, SHA's partnership with Understanding Ag's world-class teaching cadre delivered practical and profitable regenerative agricultural education to an expanding base of farmers, ranchers and policy makers-both in-person and remotely.

# Thanks to SHA's team and supporters

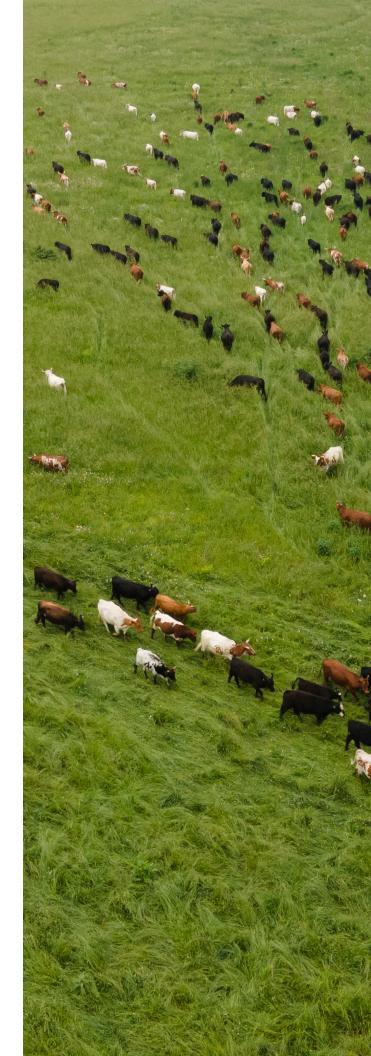
I'd also like to thank my fellow board members Kimberly Barmann (treasurer) and the newest addition to SHA's board, Jason Marmon (secretary), as well as the SHA staff for their support and collaboration as we enter our fourth year of operations. And a big shout-out, of course, to Understanding Ag's world-class cadre of instructors for their work in delivering practical and profitable regenerative ag education and understanding to farmers and ranchers throughout the country and beyond.

Finally, I'm thankful for the organizations and individuals who recognize the on- and off-farm benefits of improving the health and function of our living and life-giving soil and who support SHA's mission through their generous contributions. Donations from General Mills, Wells Fargo Financial Services, the Tundra Glacier Fund, the Tides Foundation and others, along with numerous individual donors have buoyed our scholarship program and support our day-to-day, non-profit operational activities

I hope you will take a few minutes to review our annual report. When you do, I believe you'll be inspired by what you see and read. On behalf of everyone at SHA, thank you for your continued partnership in restoring the health of our soil, our bodies, our farms, our communities and our planet.

Dawn Breitkreutz, President Soil Health Academy

Dawn R. Breithraug





# SOIL HEALTH ACADEMY 2021 NUMBERS AT A GLANCE



Number of 2021 Soil Health Academy Schools & Workshops



**185** 

Number of farmer attendees



Total Soil Health Academy scholarships awarded



**Funded Scholarships** 



Soil Health Academy Website Users



**≥ 22**<sub>K</sub>

Number of Soil Health Academy YouTube video views



Total estimated land directly affected





# Five questions and Answers with Soil Health Academy President, Dawn Breitkreutz

The winner of numerous environmental stewardship awards, Dawn Breitkreutz and her husband, Grant, own and operate Stoney Creek Farm in Redwood Falls, Minn. Their farm has served as the host location for multiple soil health-focused regenerative agriculture schools and workshops for several years—including the Soil Health Academy's three-day school.

Since the inception of the non-profit SHA in 2019, Dawn has served on its board of directors as treasurer. Described by SHA co-founder Allen Williams, Ph.D. as someone who "walks the regenerative agriculture talk and always leads by example," Dawn was selected to become the organization's president this past October, replacing SHA co-founder David Brandt.

Recently, we posed five questions to Dawn and are sharing her insightful answers with you below. Upon reading them, we think you'll agree that Dawn, who is a U.S. Air Force veteran, will be equally adept and committed in her role as president of SHA as she is in her role as caretaker of her farm's living and life-giving soil.

# Q: Tell us about your and Grant's personal regenerative journey and how that experience has affected your farming operation and your lives.

A: We seriously considered quitting farming early on because farming just wasn't profitable for us, nor was it fulfilling. Honestly, at times, the start of our regenerative journey seemed daunting and frustrating. Grant started reading a bit about rotational grazing, mainly because we wanted to expand our cow herd, and we were curious. There were no local "experts" to gain knowledge from, so we traveled each winter to classes/seminars outside the state for answers. We brought back ideas and experimented. More often than not our ideas failed. But, once we found some very kind, smart, and helpful people to guide us both about our grazing operation and our row-crop enterprise, our journey smoothed out and became fun.

Those early hard lessons strengthened us and actually taught us a great deal. Those early lessons also cost us a great deal. And those early lessons made us realize that we needed to share our experiences to help other producers avoid the problems we encountered. We call those early losses "our tuition." Now we are excited to see how fast we can make changes across all the acres we manage.

# Q: As a regenerative farmer, what do you find to be the most challenging and what do you find to be the most rewarding?

A: I'm going to start with the easiest part. . . rewarding! Hosting numerous classes here on the farm over the years has been so uplifting. We see the students struggling with the information they are presented early in the class, until suddenly there comes a moment that a light comes on in their eyes, and I get to see their "Aha, I get it" moment. I have witnessed grown men and women cry in the middle of our farmyard because they are so overwhelmed by the possibilities they see for their future. We have been told that the classes literally saved their operations. Complete strangers just come up and hug us because they are so overwhelmed with emotions and hope. The regenerative ag community is such an open and welcoming group! On the ground, in my day-to-day, it is beyond rewarding to see the life we are creating. From the smallest insects to new strange birds and wildlife returning. . . it's all a true blessing.

The most challenging part of regeneration for me personally is patience. The good Lord did not instill me with patience, and regeneration requires a large amount. It is a challenge to get through the hurdles of chemical and seed selections, finding markets for different grains we are raising and changing our marketing to reflect our regenerative operation. With the increased interest in regenerative agriculture, it is becoming easier to deal with the challenges as consumers are demanding products raised regeneratively.

Q: You play a very active, hands-on role in the day-to-day operation of your family's farm. You're also involved in the local veterans' community and play a role in the state's agricultural and conservation movement. With everything you have on your plate, what motivated you to accept the volunteer role of president of SHA?

A: Well, anyone who knows me knows that I don't like to sit still for long! Let me just say that I was very humbled and honored to be asked to step into this role. The main reason I accepted was because I believe with every fiber in my being that regenerative agriculture is the answer to turning our climate challenges around. I see those answers every day I as walk on our land. I'm proud of what Grant and I have accomplished on our farm and I want every producer out there to feel the satisfaction that we feel as we build back the soil health we have lost in the last 150 years in agriculture. If I can help influence producers do the same, then I will be happy in this role and work my tail off to help build SHA into a strong, successful organization. I enjoyed working with David Brandt to get SHA up and running and I will dearly miss him, but I know that we will still be interacting with him as we move forward.

# Q: What are the greatest challenges facing SHA's mission and how are those challenges best addressed?

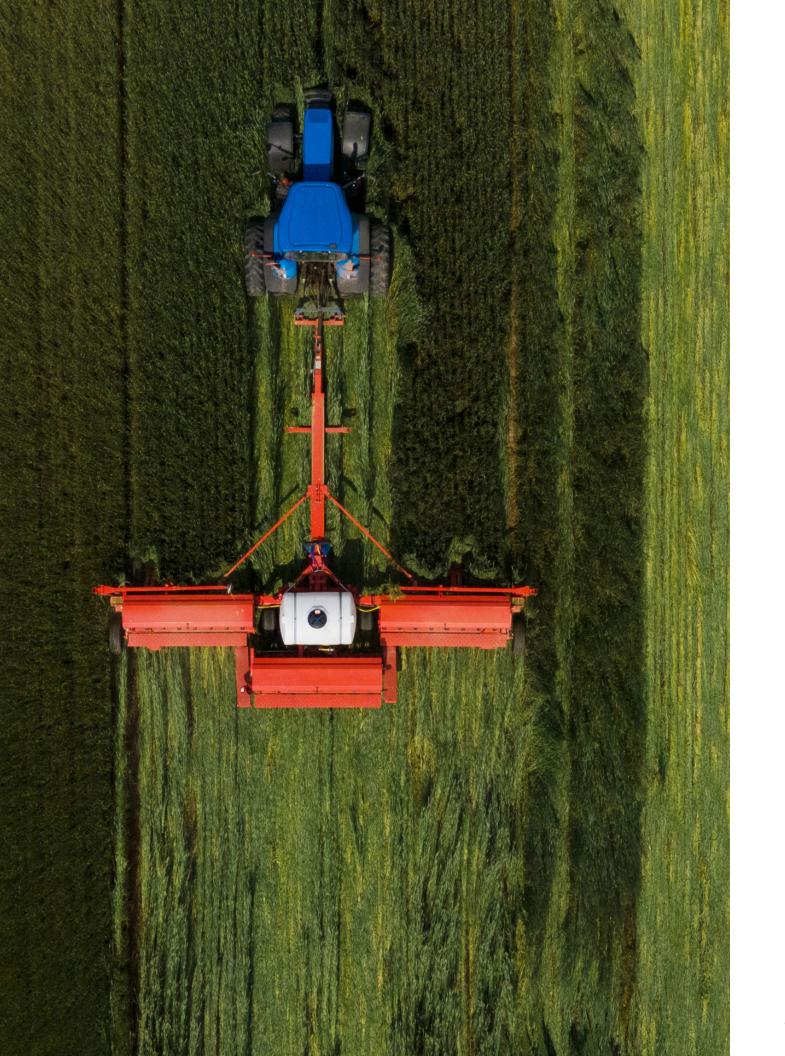
A: Grant likes to say that humans don't like change and they don't like to admit they were wrong. Changing our operation required the admission that we had it wrong. Changing the minds of producers who have generations of farming in their blood is not an easy task. Change needs to happen and, I believe, education is key to that change.

We are challenged by industries who continue to drain the wallets of producers to increase yields and we are challenged by old thought processes regarding tillage and fertilizer. Gabe Brown says, you don't know what you don't know. That's why SHA is important. In order to turn this giant ag industry around, we need to educate the producers and consumers about why soil health and the principles of soil health are so vital. We provide scholarships to help offset the costs to attend academies. We want to be able to make our classes accessible to everyone who wants and needs to attend. In order for SHA to accomplish this task, the need for continued financial support is very important for our relatively young non-profit.

# Q: What is your vision for the Soil Health Academy over the next three years?

A: Obviously, the entire world has struggled over the last 18 months. We had to cancel schools during that time period. I don't believe we can afford to slow down the momentum we have built to educate producers about regenerative agriculture. In fact, I feel we need to speed things up. We are working hard to add to our curriculum and to find ways to teach all segments of society about the importance of regenerative agriculture. Human health relies on soil health, and now more than ever, we need to change our practices.

My hope is that we see the students return to the variety of classes we have coming up, and we see more participation from landowners, educators, government agencies, and consumers. Regen Ag 101 is a great on-line resource for education and we are expanding instruction there, as well. Our mission states that in restoring the health of our soil's ecosystem, we will restore the health of our bodies, our farms, our communities, and our planet. We are all very dedicated to this mission and I look forward to working with the board and our instructors to expand our educational capabilities.







# Survey: Immediate and long-term economic and resource benefits experienced by SHA graduates

For the third consecutive year, a comprehensive survey of the Soil Health Academy graduates was conducted to help the board of directors and faculty assess the on-the-ground impacts SHA graduates experience while transitioning from tillage- and chemical-dependent conventional agricultural practices to soil health-focused regenerative agricultural practices. Data from the survey are also used to inform the board in the development of future curriculum and course offerings.

### Overview

More than 110 graduates completed the survey either online or in printed form. Of those respondents, 22% attended an SHA school or workshop in 2021; 14% in 2020; 37% in 2019; and 27% in 2018. The breakdown of acres farmed using regenerative practices were fairly evenly distributed among the regeneratively farmed acre grouping (1-10; 11-50; 51-100; 101-250; 251-500; 500-1000; 1001+) with the largest respondent group comprised of farmers using regenerative ag practices on more than 1001 acres (25%).

Last year's survey results revealed a significant correlation between the duration of practice implementation and resulting resource and economic benefits. And while many graduates experienced financial, input and resource improvements early in their respective regenerative journeys, the survey suggested those benefits are even more pronounced the longer these regenerative agricultural principles are applied in their operations. This year's survey revealed a continuation of that correlation.

Like last year, respondents reported significant reductions in synthetic inputs across all groupings. When filtering respondents who identified as "certified organic" (whose operations do not involve the use of synthetic inputs), input reductions among conventional-to-regenerative graduates are even more pronounced.

## On-the-ground impacts experienced

Regarding the tangible impacts regenerative agricultural principles experienced in their operations to date, the survey revealed that more than two-thirds of the respondents, collectively, reported experiencing both positive resource and economic gains while transitioning from conventional agricultural practices to regenerative agricultural practices.

Direct-to-consumer marketing activities were reported by 40%, while 67% of respondents reported producing pasture-raised proteins (beef, pork, chicken) as part of their operations. There was no statistical difference between reported profitability improvements between the operations featuring direct marketing and pasture-raised products verses all other operations.

Like last year's survey, the 2021 poll revealed differences in reported benefits based on years of regenerative principal and practice application. In some categories, however, respondents reported the second year of practice implementation yielded the most pronounced input reductions, but those differences fell within the survey's margin of error of +/-7%). Additionally, when filtering graduates whose operations were "certified organic" prior to SHA school attendance, the responses more closely aligned along the years-of-implementation to reported-benefits trends observed in last year's survey.

By year of SHA school attendance, the crosstab comparisons are as follows...

Compared to my operation before implementing regenerative agricultural principles in my operation, my per-acre net profits in 2021 were more than 10% higher..

- Attended SHA in 2021 4%
- Attended SHA in 2020 = 27%
- Attended SHA in 2019 = 26%
- Attended SHA in 2018 = 30%

# **SHA Graduate Impact Survey**

Since I began implementing regenerative agricultural principles in my operation, my use of synthetic (chemical) fertilizers has decreased more than 21%...

- Attended SHA in 2021 28%
- Attended SHA in 2020 40%
- Attended SHA in 2019 \_\_\_\_\_ 53%
- Attended SHA in 2018 40%

Since I began implementing regenerative agricultural principles in my operation, my use of pesticides and herbicides has decreased more than 21%....

- Attended SHA in 2021 \_\_\_\_ 28%
- Attended SHA in 2020 \_\_\_\_\_ 53%
- Attended SHA in 2019 42%
- Attended SHA in 2018 \_\_\_\_\_ 51%

Since I began implementing regenerative agricultural principles in my operation, water infiltration in my soil has increased more than 10%...

- Attended SHA in 2021 28%
- Attended SHA in 2020 **2**6%
- Attended SHA in 2019 40%
- Attended SHA in 2018 \_\_\_\_\_ 37%

Since I began implementing regenerative agricultural principles, observable biodiversity has increased more than 10%...

- Attended SHA in 202
  33%
- Attended SHA in 2020 47%
- Attended SHA in 2019 \_\_\_\_\_ 52%
- Attended SHA in 2018 60%

Since I began implementing regenerative agricultural principles, my grazing forage diversity and biomass increased 10% or more...

- Attended SHA in 2021 28%
- Attended SHA in 2020 47%
- Attended SHA in 2019 40%
- Attended SHA in 2018 \_\_\_\_\_ 50%

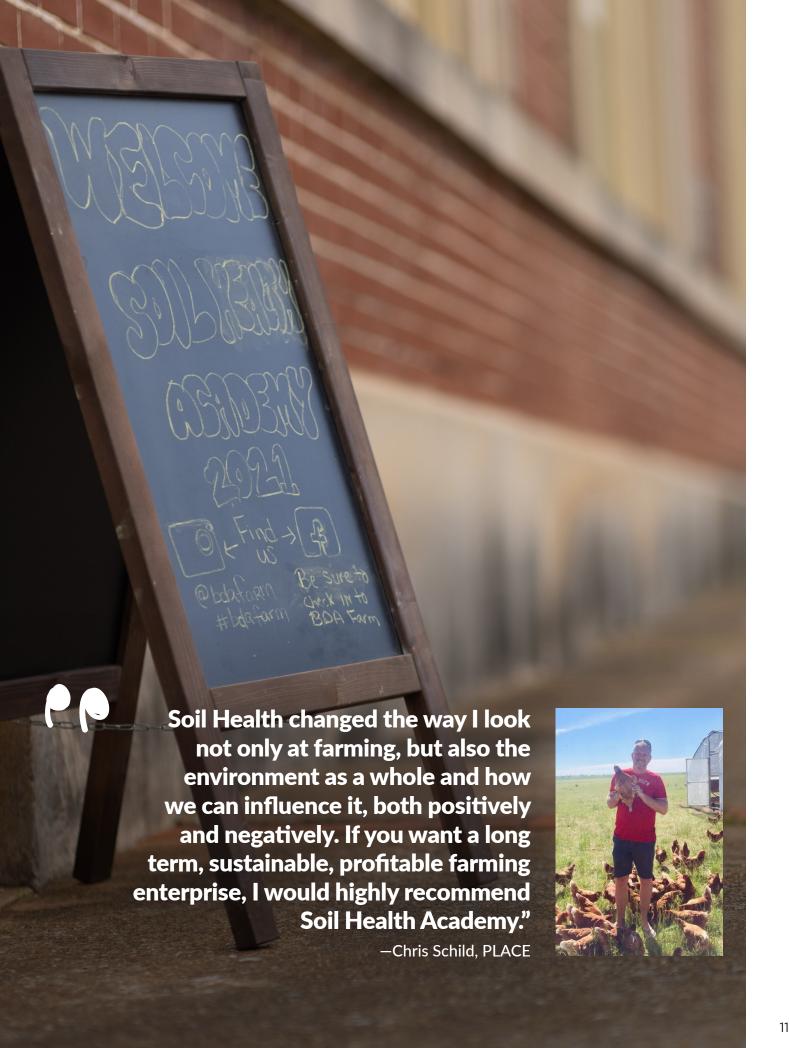
# About future course offerings

To the opened-end question regarding suggestions for potential programs and services SHA should offer to further advance the regenerative agriculture journey of our attendees, we received a range of helpful suggestions and topics for future webinars, field days, onfarm schools and printed resource guides—all of which will inform the board's curriculum development in 2022 and beyond.

To the specific question, Would you like to see an SHA-focused school on any of the following topics? our graduates responded as follows...

- Grazing 58%
- Nutrient management 51%
- Direct marketing 47%
- Enterprise stacking 42%
- Cropping 35%
- Gardening 29%
- Other 21%

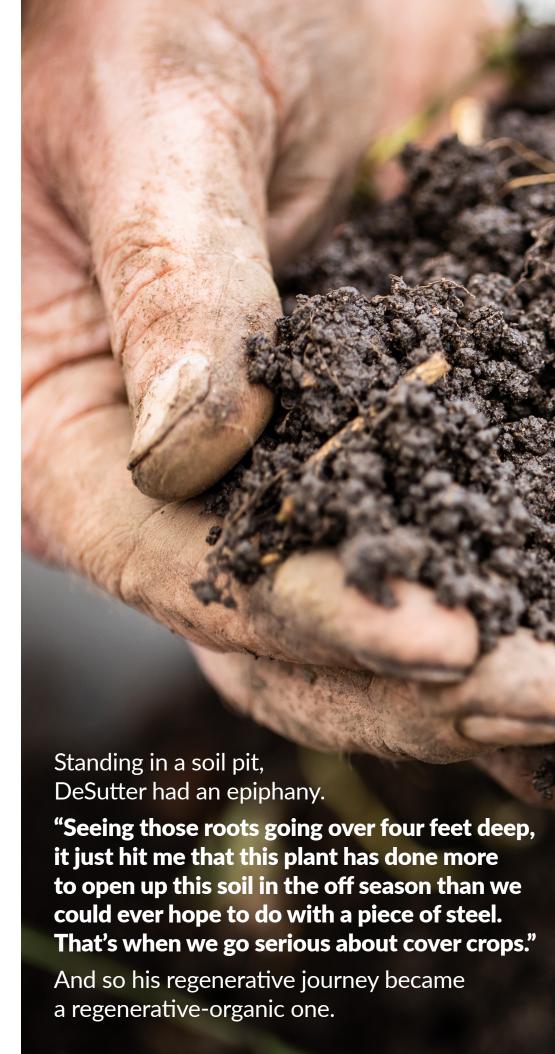
The SHA board, faculty and staff are grateful to all the graduates who participated in the survey and look forward to providing and developing additional educational offerings for its current and future alumni.



Dan DeSutter's regenerative journey started incrementally when, in 1983, when he switched from conventional tillage to ridge-till on his family's then-700-acre farm. In the late 1990s, while transitioning from ridge-till to no-till, he also began integrating cover crops.

In battle to break through soil compaction layers that featured increasing horsepower and and witnessed, first-hand, how the tenacious roots of annual ryegrass could do more to break up soil compaction layers than steel implements forced through the soil by mega-horsepower-driven tractors.

What he wasn't observing was a noticeable improvement in soil biology.





# Farmer, teacher, student: Soil Health Academy School Host Shares Successes, Failures

Dan DeSutter has seen a lot, learned a lot and knows a lot about the highs and lows of regenerative farming. Because of his willingness to share his practical experience and knowledge with his farming colleagues, he has become one of the leading voices in the soil health and regenerative farm movement.

He's also hosted numerous soil health workshops on his 4,900-acre farm in Arcadia, Indiana, including most recently, the Soil Health Academy's world-renowned three-day school.

The 25 attendees who travelled from all over the country witnessed, first-hand, how DeSutter implements organic-regenerative principles and practices in his operation and to see the impact those efforts are making in the business operations and on the farm's ecosystems. They were also able to see what happens when things don't go as planned.

"We spent afternoons out in our fields showing how we put soil health principles into practice but we weren't shy about saying 'Hey, here's one that turned out really well, and here's one that didn't.' We're still learning. We're not perfect at this yet," DeSutter said.

But it's those failures, he said, that often yield the most salient lessons.

"Too many times we want to show people just the successes," he said. "But you can learn more from the failures and I think our willingness to do that was insightful."

Another important regenerative-farming benefit on display during the SHA school was how soil health-improving, diverse farming operations and consumercentric offerings can enable opportunities for future generations.

"I know the point was not missed by those in attendance that all three of my sons are now involved in the farming operation," DeSutter said. "We talked about providing the next generation with opportunities and how our approach is feeding into an inter-generational business here.

"It's probably because of our regenerative approach that all three of my kids have chosen to want to come back," he said. "Frankly, I'm not sure they would have, if we were doing the same old thing."

Getting closer to the consumer by providing more nutrient-dense foods, grown with climate-friendly farming practices, is central to DeSutter's departure from "the same old thing."

"We wanted to be more consumer-driven and soil health-driven, which has always been a key strategy for us," he said. "We really wanted to get closer to the consumer and one of the steppingstones was getting organic certification. Once you have that, you can get your foot in the door to raise some alternate crops. We haven't gone down that road yet. There's so many new things to learn, that we've stuck with the crops we're familiar with and we have local demand for but that's one of the areas we want to try to develop."

Marketing advantages notwithstanding, DeSutter believes the future will go beyond organic.

"Organic can be destroyed with the stroke of a pen—by policy changes or legislation," he said. "But what's real is nutrient density. You can't fake that. That takes biology."

According to DeSutter, technology which allows consumers to scan food with their phones to assess the nutrient density of food in the grocery story by simply scanning produce or fruit with a phone, has already been developed and will be a game changer for those farming with regenerative methods that enhance soil biology.

"The technology is here, the cost of which is being brought down to cost-effective, user levels and it's going to be part of our future," he said.

Despite DeSutter's enormous reservoir of soil health knowledge and on-farm experience, the soil-health teacher remains an eager soil-health student—someone who found himself held in rapt attention by the Soil Health Academy's cadre of instructors throughout the three-day school.

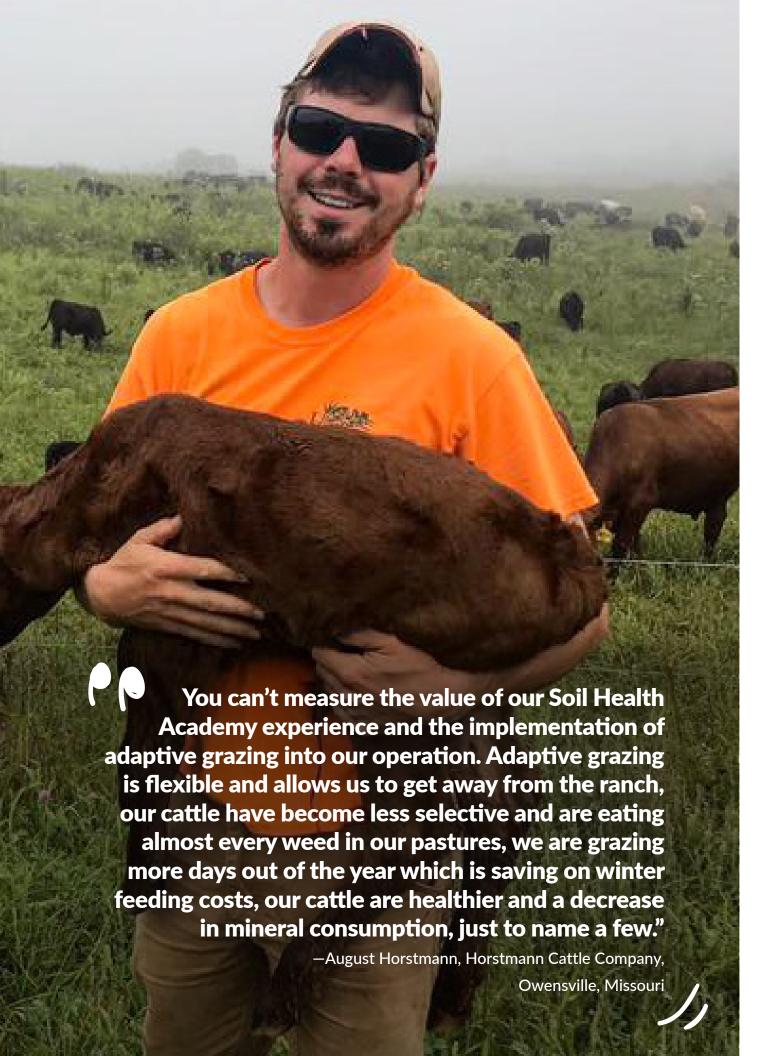
"I'm as much a student of this as anyone," he said. "I read a lot and have been to a lot of different schools and conferences, but the Soil Health Academy is one of the few truly unbiased venues where producers can go to get this kind of knowledge."

Consequently, DeSutter said, SHA is a truly unique and valuable resource for those looking for more profitable and more rewarding ways to farm.

"Let's face it, universities are not going to get in this space because it conflicts too much with their major funding sources," he said.

"SHA has a science-based approach and doesn't have a product to sell or a hidden agenda. Their only agenda is to help you understand how soil works."





# Shop Regen Foods connects consumers, food processors with regeneratively grown products

In 2021, SHA launched a web-based platform to connect its regenerative farming and ranching graduates with a growing base of consumers, food processors and retailers interested in purchasing regeneratively grown products.

The 'Shop Regen Foods' platform allows consumers and others to search by location, by pasture-raised products available and by delivery and shipping options. Because an increasing number of producers are entering the regeneratively grown marketing space, Shop Regen Food shoppers will know that the farmers and ranchers featured on SHA's platform are producers who have attended SHA's three-day, on-farm schools—producers who are committed to continuous soil health improvement through their regenerative ag journey.

While SHA does not verify the practices used on the featured farms and ranches, the platform provides links to the websites of the participating producers so consumers can research on their own to learn what soil health principles and practices are being utilized in the production of the food they're interested in purchasing. The platform provides a virtual way to connect consumers with regeneratively grown products while allowing them to learn more about the farm families growing their food.

Consumer interest in purchasing food grown in ways that protect the environment and enable ecosystem diversity has been steadily growing, boosted by the popularity of the Netflix documentary, "Kiss the Ground," released earlier this year. The movie, narrated by Woody Harrelson, highlighted the many benefits of soil health-focused regenerative agriculture.

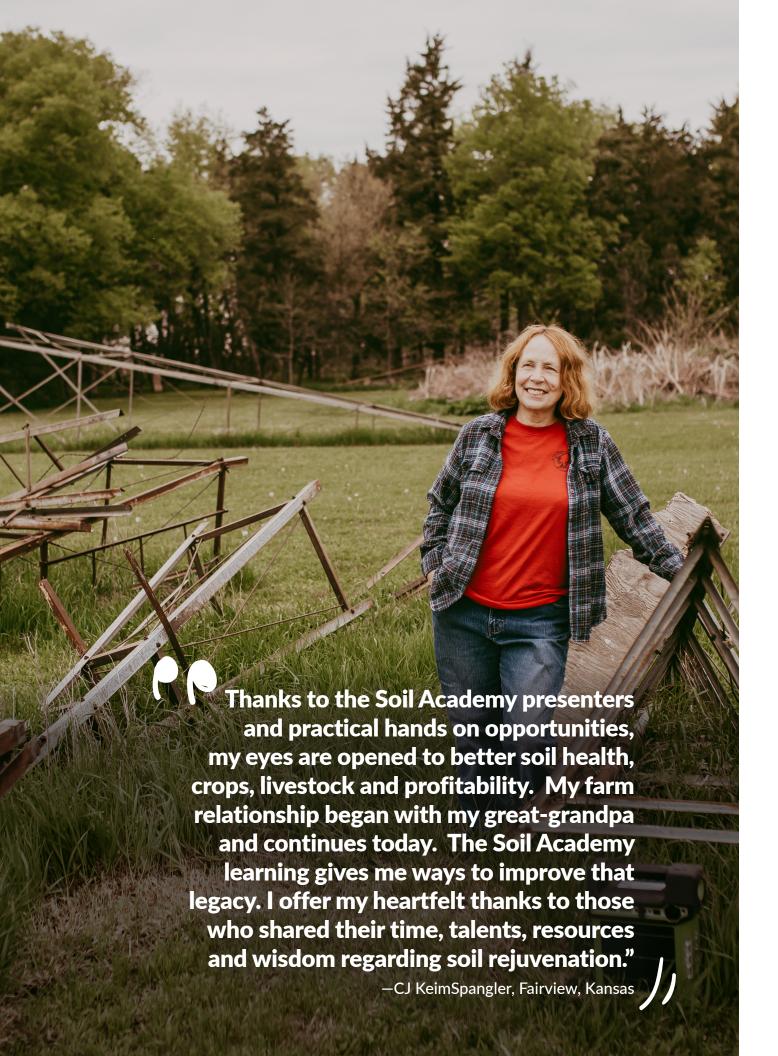
Foods grown using soil health principles are known to be more flavorful, which is something consumers value and an increasing volume of research also points to the health benefits of consuming pasture-raised, nutrient-dense protein products.

For SHA's graduates, the Shop Regen Foods provides regenerative family farms with another virtual 'store front' for graduates to expand their direct-to-consumer sales and to potentially connect with food processors and retailers interested in sourcing regeneratively grown products.





SHA's new "Shop Regen Foods" platform provides a way to connect consumers with regeneratively grown products and it allows consumers to learn more about the farm families growing their food.







# SHA Co-Founder, Gabe Brown, Wins 2021 Heinz Award for the Environment



Gabe Brown, Soil Health Academy cofounder and instructor, received the prestigious 26th Heinz Awards for the Environment, November 18.

A widely recognized leader in regenerative agriculture and soil health, Gabe continues to catalyze the movement to change farming practices. The results he achieves at his highly productive 5,000-acre farm, Brown's Ranch, together with his first-

hand farming experience and passion for sharing his journey, are inspiring farmers to shift from conventional to regenerative methods, transforming farmland from an environmental problem to a solution.

"As rewarding as it is to see the positive impacts of regenerative practices on my own ranch, helping other farmers and ranchers make the transition from the chemical-intensive conventional agriculture model to the low-input regenerative agriculture model has been the most gratifying," Gabe said.

"Through my work with Understanding Ag and the nonprofit Soil Health Academy, I'm seeing how regenerative agriculture is restoring the health of our living soil; increasing biodiversity and carbon sequestration; improving water infiltration and quality; improving the nutrient density of our food; and importantly, improving the profitability of family farms. Every day, we see proof that soil health-improving regenerative agriculture represents an enormous opportunity for farmers, consumers and our planet—and why it holds the promise of 'common ground for common good."

Recognizing that adoption of more ecologically based farming practices requires farmer-to-farmer training, better farmer networking and a culture of ideas exchange, Gabe is dedicated to sharing what he has learned.

"John Heinz was committed to protecting the environment and had a great gift for building bridges with those who initially may not have shared his point of view," said Teresa Heinz, Chairman of the Heinz Family Foundation.

"We honor Gabe for developing a new approach to agriculture that recognizes the interconnection of land, food and climate change, and for his dedication as a thought leader demonstrating that environmentally conscious farming techniques not only heal the soil, they also produce healthier food, greater yields and a better financial return for those who depend on the land for their livelihood."

# On the Brink of Foreclosure, Rancher Finds Regenerative Path Forward



The entire Schnuelle family is part of the farm's regenerative journey. Pictured here from left to right is Carsten (9), Charity (7), wife Connie, Claire (10) Ben and Caleb (11). As a life-long rancher, Ben Schnuelle had experienced his share of adversity. But 2019 was wrought with challenges unlike any the 46-year-old Nebraska native had previously encountered.

That winter, the Schnuelles witnessed their tractors buried in mud, they battled devasting blizzards and lost hundreds of cattle. During one storm, 33 calves perished in a single night.

"We were trying to feed right, follow all of the prescriptions, do what everybody does and it just wasn't working," he says. "My life was upside down and I didn't know what to do. The financial stress I was under was taking a toll on me and on my family, too."

Struggling to keep the farm solvent and stave off foreclosure, Ben was encouraged by a friend to watch several YouTube videos featuring Soil Health Academy instructor Gabe Brown.

"I started listening and looked for everything I could find," he says. "I reached out to Gabe by email, and I thought, 'Well, there's no way he'll respond,' but he did, and he got me a scholarship to go to the Soil Health Academy School at Shane New's farm in Holton, Kansas."

Sitting in the front row throughout the class, asking what he describes as "a million questions," Ben quickly realized that what he had been taught previously—the prescriptions that he had dutifully followed—had been wrong.

"God was pushing me in a direction, saying 'What you're doing is not going to work. Get over here."

Through the instruction and mentoring of the SHA instructors, Ben says he learned that nature has inherent resiliency, and realized he didn't need all of the prescriptions and costly conventional farming techniques that had landed him on the verge of bankruptcy.

Since attending those schools and after implementing the soil health principles he has learned, things are turning around for the Schnuelles, who operate a 300-head, mostly grass-fed operation near Plymouth, Nebraska.



When you fall, fall forward. Don't fall back. Learn, change, adapt, tweak it, but fall forward," he says. "What we do today will have a positive or negative influence on tomorrow and determines what kind of legacy we leave."

Ben SchnuelleNebraska Rancher





After implementing the soil health principles he learned at the Soil Health Academy schools, things are turning around for the Schnuelles, who operate a 300-head, mostly grass-fed operation near Plymouth, Nebraska.

"We're getting along because we changed what we were doing. We're not completely there yet but the principles we were taught at the SHA and through our relationship with Gabe and the other instructors have given us hope that we can still make it regardless of what the banks may do to us," he says. "There are ways to succeed without having to borrow your life away."

Ben is far from alone on his regenerative journey. His wife, Connie, and children Caleb (11), Claire (10), Carsten (9) and Charity (7) are all integral to the farm's day-to-day operation and to its new, regenerative direction.

"My wife is amazing, she's just amazing." Ben says. "She has a full-time job and still helps enormously around the farm, all while also caring for our four children. And her parents have supported us, both physically and emotionally, when there was no one else."

Even attending the grazing-focused Soil Health Academy in New Mexico a year ago was a family affair—an educational awakening for both the parents and the children, the latter of which, Ben says, were quick to absorb important lessons and bring them back to the farm.

"While out in our pasture last year," Ben recalls, "our oldest daughter, Claire, said, 'You know Gabe would scold you. We're over grazing this, Dad.' She was right. And so we moved the cattle."

Ben readily admits that his regenerative journey wasn't by design. "It was forced on us," he says. "We were broke. We were doing the regenerative 'things' before we met Gabe because we were broke. Gabe told us that's how he got into it."

Ben says he tells his children and others that failure isn't failure if you do it right.

"When you fall, fall forward. Don't fall back. Learn, change, adapt, tweak it, but fall forward," he says. "What we do today will have a positive or negative influence on tomorrow and determines what kind of legacy we leave."

In addition to sharpening his observation and regenerative management skills, Ben says another important benefit of

attending two SHA schools was the realization that he was not alone—that there are others who have faced the same challenges and are overcoming them.

"It gives you the confidence that 'If they can do it, I can do it," Ben says. "SHA provides a lot of information but, most importantly, they want us to succeed."

Three years after beginning the journey, the Schnuelles success hasn't fully blossomed, but the seeds have sprouted. The cattle are healthy, breeding and flourishing.

"Year one, you're kind of taking the cows off 'drugs' because they're adapting to a new systems and so we had some issues," he says. "Year two, was okay, but this year was really good. It was like the first year or two the cows short-circuited and now they're going again—and going well. Our cattle are easy to work with and they're in demand at the auction barn because of their condition."

Best, of all, because of the adaptive grazing techniques he employs, feed costs are down and net profit margins are up. The hard work is paying off but Ben's quick to give credit where he believes credit is due.

"All I did was implement what I was taught at SHA," he says. "But you also need to be diligent and do the work. If you do the work, God has designed a plan to succeed. The problem is, too often we get in the way."



While out in our pasture last year oldest daughter, Claire, told her father, "You know Gabe would scold you. We're over grazing this, Dad." "She was right," Ben said, "so we moved the cattle."

# Miracles change as regenerative journey continues for SHA graduate

When we visited with Brandon Bock last year, his regenerative journey had just begun. He shared a story about how his desire to farm in nature's image had run head-first into his prescriptive, conventional farming mindset.

As grasshoppers swarmed his spring wheat crop, he recounted kneeling in his field, praying for a divine signal that would tell him NOT to spray insecticide. He promptly received that signal in the form of a large flock of grasshopper-consuming seagulls. The resulting lesson for Brandon was not just one of faith but also of the inner connectivity between biology and farming.

A year later, Brandon's regenerative journey continues. Though less dramatic than a flying miracle from above, other miracles abound on his North Dakota farm, thanks to his on-going application of soil health-improving regenerative agricultural principles. Despite experiencing D-3-level drought conditions this year (and well-below average precipitation for the past three growing seasons), Brandon has created an environment below ground that is translating into other miracles above ground.



As he builds soil health through the use of regenerative agricultural principles, Brandon Bock continues to see improvements in his North Dakota farming operation. "Whether it's through the diversity of cover crops, cash crops, and even insects. Keeping life on our fields is the key," he says.

In a recent conversation, he shared some of the lessons he's learned on his regenerative journey to date, and how the continued application of the Six Principles of Soil Health is having a positive impact on the land, his quality of life and his bottom line. Following are three key lessons he's learned and the impact each has had on his regenerative farming journey.

# Three key lessons on Brendon's road to regeneration

# #1 The importance of the Haney Soil Test

"Once we get life back into our soils, we have to account for that, and the Haney Test allows us to do that."

With Lance Gunderson's recommendations, Brandon applied 50-80 percent less nitrogen to his crops this year, compared to his previous fertility program—resulting in very competitive yields for the farm's drought conditions. "That's really encouraging going forward, especially with the prospect of recordhigh fertilizer prices next year," Brandon says.

Brandon credits the combination of cover crops and a diverse cropping rotation with enabling the biology that's responsible for the naturally available nutrients. "Right now, I'm at six cash crops in my rotation, compared to just three before and we're incorporating cover crops where we can, as time and weather allow," he says. "

# #2 The importance of keeping life on the fields

"Whether it's through the diversity of cover crops, cash crops, and even insects. Keeping life on our fields is the key." The diversity of plant life not only enables soil microbiology to deliver nutrients to the plants, but it also provides habitat for life above ground. "Far too many people view every insect as a problem. In reality there are far more beneficial insects. We as producers just need to change the way we see things. Just open your eyes to what is functioning properly."

While non-beneficial insects have caused some concerns, Brandon believes nature will ultimately restore the farm's ecosystem balance, obviating the need for insecticides. "We've had some insect pressure but mostly on the field borders so the acreage loss wasn't significant, and I feel that in the long term that will balance out," he says. "The transition takes time, but we knew that going into this."

# #3 The importance of armoring the soil

"Even in these drought conditions, some of my lightest land still had moisture available. This was after raising a rye cover crop through the fall, winter, and into the spring."

By using Shelbourne Reynolds stripper headers during harvest, Brandon has been able to armor the soil more effectively by leaving wheat residue standing, thereby reducing on-ground decay, and providing the soil with extended protection from wind, heat, and evaporation. It also provides natural weed suppression (resulting in Brandon writing fewer and smaller checks for herbicides) and better conditions for his no-till equipment.

"I realize that equipment purchases aren't always easy, but it can make a huge difference in armoring your soil," he says. "While planting and rolling on an 85-degree day, in a D-3 drought with a 40 mile-per-hour wind, we had zero soil blowing. Farming conventionally, you wouldn't have been able to see where you were going. The list of benefits from armoring your soil are endless."

# Cascading and compounding benefits

Looking back, Brandon recognizes the conventional ag production model he followed provided a lot of stress and little joy in his life. "When I first started farming, I did it to make money. I tried to raise as much yield as possible without truly understanding the side effects of my actions."

Freedom from worries about the rising costs of inputs is another benefit of regenerative farming for Brandon. "Now if the price of fertilizer or herbicide goes up, I say, 'Who cares? We don't need as much of it. We can adapt to less."

This year's drought challenges notwithstanding, Brandon states that his operation, which includes rented land from multiple landowners, is more profitable than it would have been if managed conventionally. "Cutting back on inputs, in particular, has put us in a better financial place than if we hadn't gone down this path," he says.

"In the old model, we were constantly working harder and harder, spraying more and getting the same or less net revenue," Brandon says. "Through this journey, I've learned to take care of the soil first and worry about the money later."

(at right) "This photo shows sunflowers growing in last years stripped off winter wheat stubble. You can also see last fall's barley, sweet clover and radish cover residue." - Brandon Bock





# Regeneration leads to resilience for Idaho family farm

Every day, Brad McIntyre sees the many benefits of regenerative agriculture. And high on that list is the benefit of resiliency—a resiliency created by the healthy soil he and his family have been focused on regenerating since 2009.

And in 2013, when the family introduced animals into their Caldwell, Idaho farm, their soil health and the accompanying resilient-related benefits, really took off.

"From that point on, we started adding more and more cover crops, going more intense." Brad says.



"I wouldn't say it's been fast by any means. It's a slow game and you just can't expect huge successes—you're going to have small successes—but they add up."

Here's how no-till, cover crops, good grazing management and increased diversity are providing resiliency benefits the McIntyre Family Farms:

### More resilient to weather extremes

This summer, McIntyre Pastures experienced 12 days of 100-plus degree temperatures. Throughout the month of July, the lowest high temperature in the area was 91 degrees. And despite only applying 100 units of nitrogen (and 30 units of fish fertilizer) per acre, his corn yielded an amazing 298 bushels an acre. Conventional fertilizer applications would have required more than 200 units per acre for similar yields and would have resulted in lower net profits.

"We were wondering how the really, really hot weather was going to affect some of our fields and those fields with the best soil health didn't seem to be phased by it," Brad says. "There's a definite correlation between the health of our soil and the resiliency of the crops."

### More resilient to input price hikes

As input costs continue to increase and with near-record price hikes for synthetic fertilizers expected in 2022, McIntyre Pastures' decreasing dependence on those inputs provides resilience to uncontrollable, external market forces.

"Fertilizer prices are going through the roof right now," he says, "so I'm thankful that I can ask my soil to do some more heavy lifting when it comes to fertility through our cover crops. Now I can rest on the soil. I can rely on that, and I have faith in that."

### More resilient customer base

When the impact of COVID disrupted food supply chains, resulting in empty grocery shelves in 2020, the McIntyres were well positioned, with animals and products ready to sell. Those additional customers are now part of McIntyre Farms' increasingly loyal base.

"Just this year we hit our 10,000th on-line order for our products," Brad says. "It's been a long time in coming. The first year of taking online orders was 2026 we had 35 orders. It's been this slow build and it's so cool that people have trust in us to raise pastured proteins for them. We're trying to do the best job we can and know how to for the health of the soil, which is seen in the health of our animals and contributes to the health of humans. Now we have this community around us that is supporting us with their dollars and with their trust."







Thanks in large part to diverse pasture-raised product offerings and direct-to-consumer marketing, three generations of McIntyres (pictured here) have seen online sales top 10,000 orders in less than three years.

And with that trust comes a renewed excitement for farming for the McIntyres.

"When we have tours, people come out and are so excited, which is what renews us. Seeing those positive reviews and comments keeps us excited about wanting to continue to produce. The soil health is getting better; the business health is getting better; and our biggest goal is that human health gets better," Brad says.

### More resilient to development

Like many other areas of the country, Treasure Valley, where the McIntyres farm, is experiencing extensive growth and development, sending land prices skyrocketing. For struggling farms, deep-pocketed development corporations offering handsome deals in a heated real estate market can be a very appealing prospect—a way out.

"Farming is a tough business as it is," Brad says. "Just as we're starting to get decent commodity prices, input prices keep ramping up faster and faster, so the pressures are going to continue for many in the ag community to sell their land."

Thanks to their improved financial situation, the McIntyres are better able to withstand those development pressures and keep their farming traditions alive. "Because we have a community around us that continues to support us, it makes it easier to keep going and keep producing quality products," he says.

### A more resilient business model

The more profitable business model has also put the McIntyres in a better position to invest back in their business and, by extension, their community. Having cultivated a loyal and dedicated customer base over the past five years, the McIntyres are currently constructing a new building to house their freezers and products. Once constructed, the front section of the building will serve as space for the on-farm store, thereby providing another marketing outlet for local customers and tourists visiting the nearby wine country.

"When customers can make it to the farm and see our practices, see how the animals live and understand the soil health connection better, it only makes them a stronger, more loyal customer," Brad says. "Too often what's missing, especially in our grocery stores, is that connection between the customer and their farmer."

### A more resilient future

While admitting he can't predict what the future may hold, Brad says he's confident his family can continue their farming traditions that began more than 100 years ago—while also acknowledging those who have helped him along his regenerative journey.

"I'm just very thankful for SHA and Understanding Ag for spreading the message that has helped enable our success," Brad says. "I think eventually I would have found it but our relationship with these organizations and individuals really put us on a springboard to start direct-marketing and other key practices. I'm humbled and super thankful to be where we're at."

# An interview with the Godfather of Soil Health, David Brandt



Before SHA co-founder David Brandt stepped down as president of the organization in September of 2021, we had a chance to chat with the soil health and cover crop innovator to learn more about his personal regenerative agricultural journey. During the interview at his Carroll, Ohio farm, David shared some of the experiences and insights that have made him the "Godfather of Soil Health."

The interview, which can be viewed on SHA's YouTube channel, is broken into 17 short video chapters to make viewing more accessible via social media platforms.



# The chapter titles are:

Chapter 1: 'Well grandpa, we're going to see if this will work.'

Chapter 2: Going Under 'Cover'

Chapter 3: A Friendship in Soil Health Is Born

Chapter 4: 'Because family was more

important'

Chapter 5: Growing New Roots

Chapter 6: Early Experiments and

**Innovations** 

Chapter 7: Reinventing the No-Till Planter

Chapter 8: The Radish That Sprouted a

Legend

Chapter 9: The Godfather's Field Day 'Rules'

Chapter 10: Critique from a Soil Health Friend

Chapter 11: The Godfather of Soil Health

Meets 'Rick of the Haney Test'

Chapter 12: 'Side ditch advice'

Chapter 13: Soil Health Pays

Chapter 14: Mr. Brandt Goes to College—A

Soil Lesson for Us All

Chapter 15: "You want it. You fix it."

Memories of David's Wife and Soil Health

Partner, Kendra

Chapter 16: The Failures That Teach

Chapter 17: The Soil Health Academy Is Born



# A regenerative look ahead

Like many, we had hoped 2021 would be a year of returning to "normal." Unfortunately, Mother Nature had other ideas and COVID, once again, preempted many of our planned in-person training sessions. Nonetheless, following state and local health protocols, we were able to conduct four, three-day schools and two dairy/grazing-specialty one-day workshops, all of which were well attended.

As in 2020, this past year underscored the need for landscape-scale expansion of regenerative agriculture to help ensure our food security, increase the nutrient density of our food, make our farms and ranches more resilient to climate change and restore the carbon cycle. We are grateful to the organizations and individuals who generously contribute to SHA, thereby enabling our world-class instructors to provide the knowledge, understanding and confidence to farmers and ranchers while they're making the transition from input-intensive conventional agriculture to climate-friendly and more profitable regenerative agriculture.

Although we can always encounter events beyond our control, the SHA board of directors believes it is important to continue to strategically plan, execute and evaluate our efforts moving forward. Our collective work in regenerating the health of our soil and our ecosystems is simply too important to be left to chance.

Our hope is that 2022 will be a year that resembles something closer to our "old normal." If it is, we will redouble our efforts to maximize attendance at SHA's in-person schools and one-day workshops. Currently, we have eight in-person schools planned with the possibility of conducting others, including additional one-day specialty workshops.

But even if the "old normal" doesn't completely return, we remain committed to SHA's mission and will be as resilient and creative in the pursuit of that mission as we possibly can. Because with challenge, comes regenerative opportunity.

### Goals 2021-2022

#1 Provide educational and technical assistance to help conventional agriculture farmers and ranchers convert an additional 10 million acres of farmland and ranchland to regenerative agriculture.

Last year's goal was to help farmers and ranchers convert 5 million acres of conventionally farmed land to regeneratively farmed land. Despite limited in-person training opportunities, SHA's Understanding Ag instructor/consultant partnership with Understanding Ag continued to grow the total number of farmland and rangeland acres affected by our combined education efforts to more than 50 million. Our goal this year is to add 10 million acres to that impressive tally.

# #2 Expand SHA's on-line and in-person curricula offerings.

After launching Regen Ag 101 in 2020, our Understanding Ag training partners developed a second virtual Regen Ag Online course titled "Regen Ag Adaptive Grazing," which will be available at the time of this report's printing. In addition, our instructors are developing an additional course on regenerative cropping strategies for release in late 2022. All of these online offerings provide travel-free learning for farmers and ranchers worldwide. In addition, SHA school and workshop attendees receive free registration for the Regen Ag 101 course, as part of the tuition fee and learning experience.

# #3 Increase educational opportunities for historically disadvantaged and underserved tribes, groups and individuals.

Another important 2021 goal was to significantly increase the number of scholarships offered to historically underrepresented farmers and ranchers. Despite lower overall in-person school offerings, SHA provided scholarships to 49 qualified applicants. These scholarships were made possible thanks to the financial support of several key organizations and individuals. Further, we are delighted to report that General Mills, Wells Fargo Financial Services, the Tundra Glacier Fund, the Tides Foundation, the Sarah and Daniel Rueven Foundation and numerous individual donors, have pledged additional funding to further expand these scholarship opportunities in 2022 and/or to support SHA's general operation fund.





# #4 Support and further educate graduates of the Soil Health Academy.

Because the learning and discovery process for regenerative agriculture is continuous, there is an on-going need to provide information regarding the latest research findings and practice tips to SHA's graduates. SHA will continue to work with its instruction cadre partner to expand Regen Ag Online course offerings, provide free webinars and develop new training videos. In addition, SHA will seek partnerships and explore opportunities to further educate consumers, educators and policy makers about the basics and benefits of soil health-improving regenerative agriculture.

# #5 Further showcase SHA graduates' regeneratively grown products.

In 2021, SHA developed an on-line showcase, "Shop Regen Foods," wherein visitors can easily access the websites of SHA graduates offering local or online sales of their regeneratively grown products. Because increasing farm profitability is a critical component in expanding the adoption of regenerative practices throughout the nation, this feature provides SHA graduates with additional exposure to potential customers and provides an additional marketing vehicle to monetize their regeneratively grown and pastured protein products through enterprise stacking and direct-to-consumer delivery strategies. Our goal in 2022 is to expand graduate participation and to promote this platform via SHA's social media channels. An SHA "Proud Graduate" seal for use in promoting the regenerative products and marketing websites will also be released in early 2022.

#6 Secure funding to develop a new Soil Health Academy broadcast video documentary series to educate consumers, policy makers and others on the importance of healthy soils – healthy plants – healthy animals - healthy people – healthy climate.

While not achieved in 2021, SHA continues to recognize the need to develop a broadcast series through which more, in-depth, sustained information about the regenerative ag movement can be conveyed. Ideally, this proposed series will feature SHA instructors, nutrition and medical experts, as well as researchers and scientists who are at the forefront of the regenerative ag movement.





(far left) This Klessig family portrait was taken in 2021 in the farm's "Field of Gold," a seven-acre plot which features a colorful, 27-species cover crop mix that blossoms into agro-tourist, photography, and grazing opportunities.

(top middle) Pastureraised pork products are among the diverse direct-to-consumer offerings from the farm.



# Lance Klessig: In his own words

Dear Gabe and SHA,

I just wanted to take a moment and say thank you. Your encouragement and sharing have been very helpful over the past several years. I appreciate the many things you each have taught me but also for teaching me how to think differently—and to dare look at things through a new lens.

And, wow, have things have changed since when we visited you and your ranch with Luke, Mike and crew. Three Soil Health Academy schools later and here we are. Owning our farm and having more freedom, joy and balance than ever before. It's hard for me to believe how far we've come as I look back in the mirror.

Our three on-farm Airbnb rentals are doing quite well—well enough, in fact, that I was able to quit my day job—and we are adding a fourth rental next year. It's a deconstructed a grain bin that we will re-erect come spring.

Our agro-tourism traffic has been so robust that we are having to block out Sunday evenings just to have the farm to ourselves and enjoy our newly implemented sabbath.

# Here are some additional highlights from our regenerative journey in 2021:

- We hosted and open farm in which 200 visitors attended. We took Allen's advice, locating the best caterer we could and put our pork in their mouth to let them taste the difference.
- We added adjoining farmland to rent, drilled it post corn to rye, hairy vetch and Camelina.
- Our weekly pasture-raised egg subscription is taking off. We're currently at 120 hens with plans to expand to 250-300 by May of 2022.
- Our custom grazing of heifers went well. We learned a lot and are working on next year's plans for the rented adjacent land. We'll likely go with a "crazy summer mix" like I did this spring.
- We have 23 Grayson goat females that are ready to custom graze our neighbors' fence lines and woods next year. The females will be bred in December.
- We have seven acres of "Fields of Gold" that are dedicated to learning and photography opportunities as part of our agrotourism business. The fields are planted with colorful cover mixes and custom grazed after the tourism concludes for the season.

(bottom middle) The farm features three, on-farm Airbnb rentals. Whether staying overnight or just visiting for the day, all of the farm's guests experience top-notch hospitality—and can walk in the farm's pastures, engage with the animals and source their meat, eggs, honey and flowers directly from the farm.

# Lance Klessig: In his own words

In short, joining regen farming and combining it with agro-tourism has been quite successful. Our guests can experience top-notch hospitality, walk our pastures, engage with the animals and source their meat, eggs, honey and flowers direct from our farm.

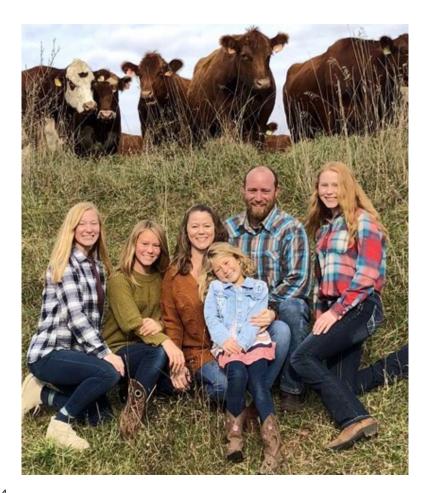
Many are "experiencing regeneration" on several different levels when they visit Heart & Soil Ridge.

On this Thanksgiving week, I especially wanted you to know how much I appreciate you all and I'm grateful that God has woven our paths together.

Best! Lance and family



Through its weekly subscription program, Heart & Soil Ridge provides pasture-raised eggs to local customers throughout the year. The Klessig children are (from left to right) Liam (9), Grayson (4), Elijah (11), and Adah (6) all of whom pitch in regularly to collect the eggs.



"The SHA has totally changed the way I see things and helped my operation be confident in the regenerative ag decisions we are making."

–Mike Steinfeldt,Winona Minnesota

# **SHA's Board of Directors**



### Dawn Breitkreutz, President

Dawn, along with her husband Grant, run Stoney Creek Farm along the bluff of the Minnesota River near Redwood Falls, MN. Over the past 21 years they have converted a conventional crop and cow/calf operation into a multi-enterprise regenerative family business. They run at least a three-crop rotation, with cover crops incorporated whenever and where ever possible in their 100% no-till cropping system. They use managed, intensive grazing throughout their pasture systems and their farm fields. Their overall goal is to heal the land, create a successful and enjoyable multi-generational family business, and ensure that future generations have a beautiful legacy to carry on. They strive to help educate others about regenerative agriculture through on-farm tours and classes. Dawn is a U.S. Air Force veteran.



## Kim Barmann, Treasurer

One of six siblings raised on the CS Ranch located in northeastern New Mexico, Kim is part of a family owned and operated ranch that spans five generations. The main business is beef cattle and the CS also raises quality Quarter Horses. In 1982 Kim began managing the south end of the ranch. A desire to improve the drought-prone prairie ecosystem led her to the study and implementation of Holistic Management and the fascinating promise of regenerative agriculture. To this day Kim is a long-time soil health champion who is dedicated to bringing pioneers/advocates of regenerative agriculture principles to New Mexico. After a decade away from the ranch, Kim returned to her roots in 2017. She is excited to continue her passion of regenerative agriculture practices, which she believes is a must to sustain the CS legacy and surrounding rural communities.



# Jason Marmon, Secretary

Jason Marmon is an accomplished program advisor and business development leader with 10 years of experience helping companies, communities, causes and individuals achieve measurable results through effective programs. In addition to his role on the board of directors for the Soil Health Academy, Jason serves as development director for US Energy, a social impact non-profit focused on sustainable system design coordination.

A collaborative team leader, facilitator, communicator and fundraiser who knows how to plan, organize, and execute successful campaigns and events that promote and grow successful programs and key initiatives, Jason is a proven strategist, entrepreneur and trusted advisor with the ability to align people and resources through

### For More Information

Kathy Richburg, Director of Operations, (256) 996-3142 soilhealthacademy.org



The Soil Health Academy is an equal opportunity employer and service provider.