

2021

Conservation Legacy Awards



Honoring Farmer
Achievements in
Modern Agriculture
that Enhance
Sustainability

Watch the ASA virtual awards program on March 16, 2021. Go to soygrowers.com for details.



Blazing a Trail

Honoring Four Farm Families for Innovative Conservation Efforts
Through the Conservation Legacy Awards Program. *By Joann Pipkin*

They are trendsetters, true pioneers. This year, the Conservation Legacy Awards program honors four innovators in land stewardship who each blaze a unique trail in advancing soil health, protecting water quality and polishing their own production practices. The Conservation Legacy Award recognizes these trailblazers as they advocate for conservation and root their own legacy in agriculture. We congratulate four exceptional soybean farmers, each a region winner of the American Soybean Association 2021 Conservation Legacy Awards:

Northeast

Jim Isley

South

Danny Murphy

Midwest

Jason Russell

Upper Midwest

Brian Ryberg

The conservation commitment and sponsorship support from the American Soybean Association, United Soybean Board, BASF, Bayer, Valent, Farm Journal and Top Producer make this distinguished award program possible.

“The Conservation Legacy Award recipients are shining examples of how U.S. soybean farmers are dedicated and

responsible stewards of the land,” said ASA President Kevin Scott, a farmer from Valley Springs, South Dakota. “U.S. farmers work hard to grow crops in a sustainable manner, with a focus on continuous improvement in their management practices. They want to protect their legacy and preserve the environment for future generations.”

Maryland soybean grower and United Soybean Board farmer-leader Belinda Burrier says, “It feels good knowing that when I grow this nutrient-dense protein, I am not only helping the food industry feed millions across the country sustainably but also contributing to a cleaner planet for the next generation.”

Industry affairs lead for Bayer Martha Smith adds, “We know that farmers are uniquely positioned to help feed, fuel and clothe our growing population while addressing climate change through how they manage their land and natural resources. Through innovation and providing new opportunities for farmers, it’s important that they benefit from the impactful work they’re doing and that they’re incentivized for not only what they produce, but how—and their positive impact on the environment.”

Paul Rea, senior vice president, BASF Agricultural Solutions North America, says, “There is no one who puts more emphasis on conserving the land for future generations than a farmer, and we relish the opportunity to celebrate

these winners alongside ASA. On behalf of BASF, I pledge our ongoing support to farmers who go above and beyond in their environmental and conservation practices, as we work together to preserve the land that feeds our world.”

Conservation is key if farmers are to remain sustainable while meeting consumer demands on how food and fiber is produced, according to Bill Hendrix, vice president of technology for Valent U.S.A. “We define a sustainable operation as one that maintains or increases productivity while protecting people and the environment over multiple generations,” he says. “Valent proudly recognizes those farmers who are building a lasting legacy of conservation at home and within their communities to remain sustainable for years to come.”

“It’s incredible to witness the passion farmers like these four outstanding finalists have for conservation and sustainability. Certainly, there is no greater testament to their dedication than to see how much they value soil-health, water quality and nutrient management,” says Clinton Griffiths, editor of Farm Journal magazine, and the anchor and executive producer for AgDay Television. “Farm Journal is proud to support their efforts, and we applaud their accomplishments, which contribute to the agriculture industry and society as a whole.”

Join the virtual awards presentation on Tuesday, March 16, 2021, at 6:00 p.m. CST.
For more details on the awards presentation, go to soygrowers.com.

LET'S PUT ABILITY IN SUSTAINABILITY.™



At Valent U.S.A., we're committed to supporting growers who are taking steps to enhance the sustainability of their operations. With our diverse portfolio of conventional, biological and organic crop protection solutions, we provide products that, when used with sustainable practices, can help growers achieve their own personal sustainability goals. Together, we can protect the natural resources of our planet by strengthening the foundation of our food supply chain, improving soil health, and protecting pollinators and their natural habitats.

Visit [Valent.com/Sustainability](https://www.valent.com/Sustainability) to learn more.



Products That Work, From People Who Care® | [valent.com](https://www.valent.com) | 800-6-VALENT (682-5368)

Always read and follow label instructions.

The Valent Sustainable Solutions Logo and Let's Put Ability in Sustainability are trademarks and *Products That Work, From People Who Care* is a registered trademark of Valent U.S.A. LLC. ©2021 Valent U.S.A. LLC. All rights reserved.



Brian Ryberg

A Novel Paradigm

Brian Ryberg's Use of Conservation Tillage and Cover Crops Brings a New Way of Thinking to Minnesota Farming

By Joann Pipkin

Minnesota farmer Brian Ryberg is different. He's even been called an oddball.

"Others look at our operation as a little strange because we think differently," Ryberg says.

The conservation-minded crop farmer not only takes pride in thinking differently but also in being successful at it. By adopting conservation tillage practices and incorporating cover crops in his management plan, Ryberg has been able to reduce operating costs, become a better steward and is now steps closer to achieving his ultimate goal — to leave a legacy for the next generation.

Changing the Mindset

Ryberg and his wife, Sandy, began farming with his parents, Howard

and Marilyn, in a 10-year partnership before they retired. Operating as Ryberg Farms, Inc., today the business raises soybeans, corn and sugar beets. Ryberg transitioned the family farm to strip-till and use of cover crops six years ago — prompting a lot of second looks at the operation's production methods.

"We are in a primarily conventional-till area," Ryberg explains. "So, to go to strip-till and some no-till fields, the appearance is different. Our methods are different."

At the time, Ryberg says they were raising a lot of corn-on-corn, and that market was particularly good. They racked up a lot of labor, tractor hours, and fuel expense working and then re-working the ground. After taking down a grove of trees and converting a newly rented property to crop ground, Ryberg says he began

2021 CONSERVATION LEGACY AWARDS UPPER MIDWEST

to wonder what they were really doing to the soil.

After several conversations with agronomy experts, some research and a trip to a conference, Ryberg embarked on a different path to productivity.

“I took a leap of faith and bought a strip-till rig,” he says. “It was a learning curve. We didn’t take a hit on yields.”

The move helped improve both soil structure and water infiltration on Ryberg’s mostly rented farmland, which has grown from 1,500 acres to about 6,300 acres in four counties west of Minneapolis-St. Paul near Buffalo Lake.

Where wind and water erosion had become a common sight, Ryberg says he can now better maintain the earth’s topsoil. Switching gears cut man-hours in half and slashed investment capital by half, further simplifying the operation, he says.

Ryberg’s change in mindset began with strip-till and has progressed to now include vertical-till methods.

After strip-tilling soybeans, Ryberg says he realized additional nutrients weren’t needed because of their already aggressive fertility program. The result was a move to vertical-till, which allows cereal rye seed to be applied at the same time as soybeans in the spring. The production combination helps Ryberg achieve 100% conservation tillage.

“We get phone calls from people that notice what we’re doing,” he says. “They like our efforts. So, we’ve been able to rent some additional land because of our way of farming. It’s always good to set yourself apart from somebody else. It’s a very competitive market. And having this



niche in the way we do things has been very positive for us.”

Cleaning Up with Cover Crops

Ryberg’s initial use of cover crops came after sugar beet harvest about six years ago. Cereal rye was incorporated using a field cultivator. Ryberg says the first two years of the rye establishment were very successful.

“Sugar beet harvest leaves no residue on the surface, and with frequent open winters, we continually had soil erosion,” he says. “The introduction of rye drastically changed this for the better.”

After establishing rye as a cover crop, Ryberg says the acreage was strip-tilled in the spring, leaving rye between corn rows. The rye was terminated soon after, greatly improving weed control, he adds.

Ryberg also began interseeding a blend of cover crops in the same pass as he side-dressed nitrogen early in his corn crop. The technique yielded mixed results, he says, because the cover crops struggled through summer dormancy amid the 22-inch-row corn canopy.

“We will continue to explore cover crop mixtures to survive the summer dormancy in our narrow rows,” he says. “No-till soybeans may play a bigger part

in practices, cover crops, erosion control and soil health in our operation if we can get cereal rye established in the fall.”

While Ryberg admits soil health is still a learning process for him, he says he is a real believer in seeing a direct benefit from fertility being placed directly below the root zone for the crop to maximize the efficiency of the nutrients. Phosphorus and potassium are applied only in the fall, and nitrogen is spoon-fed to crops throughout the spring.

“We have lowered our overall nitrogen load by 10% to 20% by applying in several passes in the spring versus fall anhydrous,” Ryberg explains.

The upper Midwest grower uses a vertical tillage tool with a seed box to incorporate cereal rye in one pass after harvest on all sugar beet ground and much of his cornstalks going to soybeans. While the rye doesn’t yield much growth in the fall, Ryberg says it grows quickly once the snow melts in the spring, allowing him to plant soybeans directly into the rye and terminate it soon after.

The practice has brought the veteran farmer favorable results by way of cleaner water in drainage ditches, reduced soil erosion and better weed control. But that’s not all.

“It just seems like the less tillage we do, the more we’re finding out the soybeans respond to that really well for yield. So, it’s really been a win-win.”

—Brian Ryberg, crop farmer, Buffalo Lake, Minnesota



Implementing conservation practices has brought Ryberg closer to leaving a legacy for the next generation.

“We’ve seen better yields on our soybeans,” he says. “It just seems like the less tillage we do, the more we’re finding out the soybeans respond to that really well for yield. So, it’s really been a win-win.”

Stepping outside the box is making an impression on fellow growers, too.

“We see that practice being adapted more for some of the other large growers in our area,” he explains. “They’re finding out the fuel savings, the economics are better and they aren’t losing yield.”

Making a Mark on the Industry

Though his peers raised eyebrows when Ryberg first introduced conservation tillage practices and cover crops to his operation, that didn’t faze him.

“My dad was always an innovator, so we weren’t afraid to try new things,” he explains. “It’s opened a lot of doors to meeting people that have become good friends and mentors. We share ideas back and forth or bounce things off each other.”

Building a network with other growers and with industry experts helps Ryberg stay on top of management strategies that will help make his operation successful.

“We have a great network of trusted people we work with,” he says. “Those advisors are anyone from co-op salespeople to private agronomists, university extension staff and fellow farmers that have shared good experiences.”

By evaluating that information, Ryberg says he can develop an operating plan for each farm prior to the growing season. His plans include learning more about soil health ratings and what that might mean to lower fertility inputs. He also hopes to focus more on plant health products, such as biologicals and fungicides.

As Ryberg makes his mark in the agriculture industry through his conservation and stewardship efforts, he realizes his ultimate goal of wanting to preserve and improve the land he farms.

“Our lifetime is really pretty short when you look at the earth and that life cycle, but yet we want to be able to continue to produce food off of this land and allow the next generation to do the same,” Ryberg says.

Ryberg and his wife, Sandy, have six children—one son and five daughters. While it’s not likely any of them will carry on the family operation, one of Ryberg’s nephews currently works with

him in the operation and has expressed an interest in carrying on the legacy.

“I want to be able to pass it down to somebody,” Ryberg says. “You don’t work your lifetime to build something and have an auction. That’s not my goal.”

Regardless of whether the land he’s farming is owned or rented, Ryberg strives to leave the land in better condition than when he began farming it. Taking necessary measures to stop soil erosion from wind or water movement is top of mind. His vision for farmland preservation is shared by landowners and family members alike, helping Ryberg further expand his operation.

“We strive to be open communicators,” Ryberg says. “Our relationships with landlords are such that we talk to them often by phone, in person, or they ride with us in the fields. We provide a quarterly newsletter to each of them. Our website shares pictures and projects we are doing in our operation.”

Farm activities are also posted on Facebook. Ryberg says their efforts help show respect and appreciation for the partnerships they have worked to create in the operation.

From hosting on-farm field days to cooperating with agricultural agencies like the Natural Resources Conservation Service for demonstrations on water infiltration, strip tillage and fertilizer application, networking has helped develop respect for Ryberg Farms both locally and around the globe.

As Ryberg concludes, “We want to leave a legacy to the next generation to be in a better position and to be good stewards of the land while we farm it.”

“They’re finding out the fuel savings, the economics are better, and they aren’t losing yield.”

—Brian Ryberg

A man in a blue shirt is looking at a large group of pink pigs in a barn. The pigs are in metal cages, and the man is standing in the foreground, looking towards the right.

Jason Russell

Never Status Quo

Iowa Farmer Jason Russell Looks To the Future as He Continually Tasks Himself With Efficiency, Sustainability

By Joann Pipkin

For Jason Russell, conservation is all about the future.

Through the conservation and stewardship practices the Iowa soybean farmer employs in his operation, Russell hopes to create a promising chance for those that succeed him.

“We would like to provide opportunities for the next generation to farm by improving methods, soil conditions and productivity on our farm,” Russell explains.

With tomorrow top of mind, the operation focuses its efforts on taking care of the soil and applying innovative production methods to maintain efficiency, so the farm can take care of Russell’s family when they need it most.

From the Ground Up

Located in east central Iowa near Monticello, Russell’s Big Boulder Farms include both crop and livestock production. Russell and his

wife, Sarah, maintain a 30,000-unit custom wean to finish hog operation in addition to a small beef cattle, sheep and poultry farm. They also grow corn, soybeans, chickpeas and hay. The couple has three small children, and Sarah works off the farm for the Grant Wood Area Education Agency as an induction coach for new teachers.

Big Boulder Farms span highly erodible soils that are prone to nutrient losses without proper management. Through extensive



"I think conserving water and resources and being more efficient are just all-around good practices."

—Jason Russell, Monticello, Iowa

use of cover crops, Russell has been able to both improve soil health and increase yields over time on his farm.

"The cover crops store nutrients that get utilized later in the year," Russell says. "They also help alleviate compaction and allow for better infiltration."

Soil and tissue testing on 2 1/2 acre grids every four years assists Russell in monitoring nitrates in the field.

"It's good to know that our pHs are correct, so that if we need lime then we can add it," Russell says. "If we need a nutrient like phosphorus or potassium, we can add that. We also do soil testing once a year by zone to try and determine what the microbial life in our soil is, and if it's healthy."

With cover crops planted on 100% of his acreage, Russell is constantly learning the benefits a plant species might provide to his operation. For example, with a summer crop, Russell uses a mixed variety depending on the purpose of the field. Ground targeted for grazing will be planted in a different cover crop than one needing additional organic matter or one that calls for control of a soil pest.

Nematode issues can be suppressed by planting mustard because the brassica family works to fumigate the soil by

producing a chemical when it decomposes that is toxic to the pest, Russell says.

"Your options are a lot more numerous as far as what you can plant for cover crops in July because they're going to have time to grow, and you're going to get some good out of them," he adds.

Another cover crop, cereal rye, ties up nitrogen which can be negative for a corn crop. However, Russell says he was able to use the variety in a corn-on-corn rotation by terminating the cover crop before it was problematic for the corn.

"(By using cover crops) you've got that healthier soil," he explains. "The poorer ground is better because there's more water-holding capacity. Overall, I've seen a gain in my production history with cover crops."

For the Environment and Beyond

While working to protect the soil plays a key role in the success of Russell's operation, use of innovative technology is also pivotal in adding to its bottom line.

Russell says solar panels have been a great tool for the farm's hog operation because the fans and augers inside the barn help consume electricity.

"Generally, the hottest part of the day is when a solar panel is working its best," Russell says. "And that goes in

conjunction with the fans and cooling in a hog barn."

Use of the solar panels is through a rural electric cooperative, so excess power generated by the farm goes out on a grid with the farm receiving a small recovery fee for the energy, Russell says.



Solar and wind energy combined work to power another of Russell's hog facilities. And, when all of the equipment works properly, that allows the operation to eliminate its electric bill — a savings that he says helps install more efficient machinery.

"First of all, it allows us to pay for the equipment," he explains. "Then, it allows us to put in more efficient equipment like a well pump with a variable pressure system, which takes about half the electricity of a regular well pump."

Switching the farm's lighting to LED has also proved to be more economical, cutting electricity use by one-third, according to Russell. Moving to wet/dry feeders inside the hog barns further helps the operation maintain optimum productivity.

"We use a lot less water and feed to produce hogs with less manure in the end," he says. "I think conserving water and resources and being more efficient are just all-around good practices."



While those tools help Russell enhance the efficiency of his operation, his efforts in environmental quality go far beyond water and electricity. From wildlife food plots to pollinator habitats, Russell seeks out unique means to further his conservation practices.

Planting windbreaks help control blowing and drifting snow, protect structures and provide habitat for wildlife. Russell also says very sensitive farm ground with steep slopes and highly erodible qualities have been placed in the Conservation Reserve Program, making it a good environment for prairie and wildlife plantings. His grandfather also established a riparian stream buffer in three-acre strips that attract woodland creatures.

“Preventing soil erosion is the most prevalent reason for a lot of what we do,” Russell explains. “As we continue to learn about beneficial wildlife and insects, I’m sure we will come up with more hard evidence why these small areas of habitat are important. A good example is alfalfa fields near pollinator plots and woodlands rarely have a need for insecticide as the beneficial insect populations keep pest populations within acceptable levels. Hawks and eagles eat small rodents that often make farming with cover crops and no-till a challenge. We are learning every day!”

Bound by a Connection

As Americans are more removed from the farm than ever before, Russell realizes the need to connect with consumers and build a bridge to sustainable food production.

With sights set on producing a more diverse crop rotation that includes the addition of edible food grains, Russell works to adapt specialty crops in the scope and growing conditions of his operation.

Chickpeas and flax have added to the farm’s diversity and created a keen interest in his local community. With more than half a million people within an

hour’s drive of Russell’s farm, he hopes to reap additional rewards by tapping into the local food market.

“I had a lot of phone calls,” Russell says. “They were like: ‘Why is your field that pretty color of blue?’ When flax blooms, it’s beautiful. It’s just solid blue flowers.”

Russell maintains open communication with his neighbors, too, planning and scheduling manure application, assisting with snow removal and providing pork to those close by. He also conducts positive messaging on social media to share his farm story in addition to hosting tours for a variety of audiences and speaking to media outlets about conservation and regenerative agriculture.

Active in a number of farm organizations, Russell is a district advisor for the Iowa Soybean Association and over the years has been the recipient of countless environmental stewardship awards.

According to Theo Gunther, who works with environmental programs and services for the Iowa Soybean Association, Russell continues to be an example and advocate for integrating conservation practices into corn and soybean production systems in the state.

“He leads by example using low disturbance, high ground cover methods to efficiently obtain high crop yields and protect natural resources,” Gunther says. “Through his actions he is among the farmers that help set the bar for his peers and the industry.”

Russell’s wife, Sarah, adds that her husband is constantly working to share a positive message about agriculture with others and to better their operation.

“He’s always trying to look for more ways to improve, such as the cover crops and exploring new ways to continue our farming practices that are more innovative, too,” she says. “He’s been able to expel a lot of perceptions of the agriculture industry by having those conversations and having that knowledge base and then relating it to people in a way they can understand what we’re doing on our farm.”

And at the end of the day, Russell’s message is still about protecting the resources for future farmers.

“I strive to be efficient and sustainable, regenerative generally in the field is what I’d like to see because we’re losing soil every year,” Russell concludes. “We need to regenerate it, not just sustain it.”



Switching the farm’s lighting to LED, including the 30,000-hog operation, has cut electricity use by one-third.

Revytek™

Fungicide

SET THE
GROUND RU

Revytek fungicide delivers uncompromised performance.
So your crops get reliable, season-long protection.



LES.

 **BASF**

We create chemistry

Tim Wankel - Beason, IL

Always read and follow label directions.
Revytek is a trademark of BASF. © 2021 BASF Corporation. All Rights Reserved.



Jim Isley

Becoming the Benchmarkers

Conservation Practices Take Center Stage as the Isley Family Continually Learns How to Better Their Operation and Set an Example for Others at the Same Time

By Joann Pipkin

It's been said that actions speak louder than words. For the Isley family, stepping forward to make conservation practices a priority on their Michigan farm is far more than happenstance.

"We want to be a good example to other producers in the area," Jim Isley explains.

And being that good example is all about bending the curve for the veteran farm family. From preventing soil erosion and careful use of cover crops to protecting water quality, the Isley operation focuses efforts on one end goal: farm sustainability and profitability, while encouraging others to use conservation practices.

Eye on Water Quality

Situated in southeast Michigan near the town of Palmyra, the Isley family's farming heritage spans more than 150 years and six generations. While the operation was once a diversified crop and livestock farm, today its focus is solely on growing corn and soybeans. Patriarch Jim Isley has worked his family's land for more than 40 years and currently runs the operation with his wife, Laurie. Their son, Jake, and his wife, LeeAnn, represent the next generation to be actively involved in managing the farm enterprise.

Nestled in Lenawee County about 30 miles west of Lake Erie, the farm is primarily sandy-loam soil with gravel subsoil. Reduced water-holding

capacity calls for the need to conserve as much moisture as possible throughout the growing season, Jim says.

“Our conservation practices of strip-till, no-till and cover crops allow us to build soil structure, soil organic matter and conserve water throughout the growing season,” he explains. “All of our acres are located in the River Raisin Watershed, which is part of the Western Lake Erie Basin.”

Lake Erie was identified as an impaired watershed after an algal bloom led to a temporary shutdown of the water supply in Toledo, Ohio, in the summer of 2014. The algae problem is complex, but is caused in part by increased levels of dissolved phosphorus from agricultural runoff.

“This issue shined a spotlight on farming practices, both positive and negative, being used by farmers in the Western Lake Erie Basin and how those practices may impact water quality,” Jake says. “This gave us a platform to tell our story and show how we can reduce the negative impact on water quality through the use of conservation practices.”

With tile drainage in place on all of their acreage, Jake affirms the farm’s focus on water quality. “I’m farming differently knowing that I want to put a nutrient right where the crop is going to need it and where it has the smallest chance of getting away.”

In cooperation with Michigan State University and state conservation agencies, the Isleys are working on a water management project that hopes to identify whether or not controlled drainage helps reduce the amount of nutrients that leave through tile lines.



In addition to the potential to reduce nutrient runoff, the Isleys see a possible yield gain from drainage water management.

“Weather is a huge driver in our crop yields. It’s outside of our control,” Jake explains. “Almost every summer, we’re going to experience significant drought stress. We are hopeful that drainage water management can help reduce that.”

For the Sake of Soil

Through the exclusive use of no-till and strip-till practices, nutrients are applied subsurface; deep-banded with strip-till in the fall, with the planter in the spring, and side-dressed in-season. And with the majority of their acreage especially flat, they are able to farm without the need for contours or terraces.

The Isley’s conservation mindset begins with soil sampling and precision fertility management.

“We sample half of our acres every year,” Jake explains. “This ensures that we apply only what fertilizer is needed

for the upcoming crop seasons. These frequent samples allow us to stay diligent in maintaining and optimizing the pH and fertility of our soil.”

While fertilizer applications happen more frequently, Jim says rates have been reduced for multiple inputs for any single application. This practice further maximizes nutrient availability for all crops and reduces some fertility costs while increasing yields, he adds.

Jake says that before switching to strip-till, they used a three-pass tillage system. Now, the same task is completed in one pass across the field.

“We use less fuel, we’re much more efficient, and we have seen yield increases in that scenario,” he explains, adding that in challenging weather years the yield is often increased substantially more. “We see better water infiltration and better water retention because we’ve improved the soil structure in our system.”

Recently completed construction of a dedicated fertilizer and chemical storage facility allows the Isleys to properly store

“This gave us a platform to tell our story and show how we can reduce the negative impact on water quality through the use of conservation practices.”

— Jim Isley, crop farmer, Palmyra, Michigan

all liquid fertilizer and pesticides on the farm.

“The facility has allowed us to switch from using anhydrous ammonia to a liquid 28% nitrogen product that is much less harmful to soil health,” Jake explains.

Their use of cover crops is in what Jim calls a “learning curve,” as they strive to determine what cover works best. Currently, annual rye serves as the foundation, due to its tremendous root growth and ease of establishment.

Using aerial application to seed cover crops prior to harvest, the family has seen a significant reduction in soil loss due to wind and surface water erosion and an increase in water infiltration through the practice. Cover crops also help reduce sand blasting in the spring on newly emerged plants as the Isleys work to make their use a continuous sustainable practice on all of their acreage.

“The things we’ve done around soil sampling and fertility management are not just conservation,” Jake says. “They’re also what’s best for us from a production standpoint. We grow better crops because of these practices.”

“Our conservation practices of strip-till, no-till and cover crops allow us to build soil structure, soil organic matter and conserve water throughout the growing season.”

— Jim Isley

Leading by Example

Focused on setting a standard for farming in their area, the Isleys’ conservation mission is about sustaining an industry that has built their family legacy.

“I’m excited about what we’re doing today,” Jake Isley says. “I’m excited about what’s ahead. I don’t know what that looks like, but I want to continue to improve on our system.”

The young farmer finds satisfaction, too, in sharing the farm mission with others while continuing to progress the operation’s own efforts. “We want to get better,” he says. “I don’t need to keep it to myself. I want to say, ‘Hey, here’s a path that I think would work. Let’s try it.’”

Rooted in long-term conservation sustainability and profitability, the Isleys’ focus on building soil health and protecting water quality truly bears their commitment to leading by example.

Through a collaboration with like-minded farmers, the Isleys hope to improve farm efficiency and conservation impact for all parties. They host a number of local events to help maintain positive relationships with their neighbors, highlighting the operation’s transition to strip-till and other stewardship efforts.

“We have had many conversations with neighboring farms about our conservation efforts and are excited to see those practices then be adopted by others,” Jake adds. “Many neighbors get a new understanding of our conservation practices after riding in a tractor or combine asking questions.”

Their service-to-the-industry mindset is further seen in Laurie Isley’s recent appointment to the United Soybean Board. Through her travels, Laurie works to continue spreading the conservation message.

“We care about the environment; we care about the water quality; we care about the soil, and we’re here for the long haul,” she explains. “We’re here to build something that will go beyond us.”

As she continues to set an example for others, Laurie says sharing their message with the media can further amplify the importance of conservation and sustainability in the industry.

For a family legacy bound by six generations, setting an example of effective conservation stewardship thrives amid an era of bigger and better at any cost.

“We’re excited about the synergy of agriculture and conservation,” Jake says. “We think it can provide solutions and we want to find those solutions.”



Jim explains how the Isley family is rooted in long-term conservation practices.



WHERE THE RUBBER MEETS THE ROW

The road is calling. And we answered it. Thanks to our soy checkoff, U.S. soy can be found in every Goodyear Assurance® WeatherReady® tire. But we didn't stop there. We've also developed a soy oil polymer to replace petroleum in asphalt, now gaining traction in 30 states. See all the ways we're driving U.S. soy demand.

LEARN MORE AT [UNITEDSOYBEAN.ORG](https://unitedsoybean.org).

 **SOY**





Danny Murphy

Continuing the Journey

Stewardship Takes Another Step Forward as Danny Murphy Lives Out a Conservation Legacy That Spans More Than Seven Decades

By Joann Pipkin

When Danny Murphy's grandfather purchased his Mississippi farm in 1944, he knew it would have to be improved for him to be successful.

"His neighbors told him the land was very poor and only fit to hold the world together," Danny explains.

Challenged by what he could do to make the land productive, over the years, the elder Murphy worked to establish a foundation of conserving and protecting both soil and water. It's a foundation his grandsons, Danny and Tommy, continue to build on today.

Building on the Foundation

From the mid-1940s through the mid-2000s, cotton was king on Murphy Farms, located near the town of Canton. While Grandpa Murphy planted cover crops, built terraces and improved soil fertility, a successful and productive farm emerged.

"Cotton is a very difficult crop to get out of the ground," Danny explains. "It's got a weak seedling. One of the things (Grandpa) would always say was: 'The rougher the land, the better the stand.' I think he always thought if you didn't limit tillage and make sure that you had the opportunity to have a little bit of organic matter, a little bit of structure to the ground, that it would get a better stand."

In the early '70s and into the early '80s, Danny says weed control in cotton was a real challenge, and the best way to combat that was with cultivation. The repeated soil-working process was disturbing, though, he adds.

Then in 2000, Danny says reniform nematode and low soil organic matter brought sub-par cotton yield. Corn helped solve both problems and through 2006, the Murphys maintained a three-way rotation between soybeans, corn and cotton.



But, as cotton prices dropped and corn and soybean prices increased, cotton slipped from the farm's rotation.

With conventional tillage practices commonplace across the South, the operation moved to minimum-till in 1996, as Roundup Ready crops became available, greatly reducing soil erosion, Danny says.

The operation further converted to no-till in 2007, spurred by what Danny says was a feeling they could still do more to protect the soil.

"Yields were consistent with our tilled fields; plus, we were able to reduce fuel, labor and equipment," Danny says. "By 2012, we made the full transition to 100% no-till. Now that we have up to 14 crop seasons on some of our acreage, we continue to see the benefits of no-till production and adding cover crops."

Additionally, Danny says soil organic matter has improved from below 1% to between 1.4% and 1.9%. Working with their local Natural Resources Conservation Service, the Murphys are further able to continue looking for ways to conserve and improve farmland.

Located in central Mississippi, 2% to 6% slopes are found along the rolling hills of the Murphy farm. Highly erodible land, formed from wind-blown soil deposits called loess, is common in the region. Average rainfall exceeds 50 inches per year.

"The combination of highly erodible soil and high rainfall creates an environment which responds to our no-till production system," Danny explains.

Terraces were first introduced to the Murphy operation in the 1950s,



Brothers Danny and Tommy Murphy follow in their grandfather's conservation footsteps.

although many have been constructed after Danny started farming.

"With our long slopes and highly erodible soil, terraces are essential to reducing erosion on our fields," Danny says. "We do use grass waterways and have our turn rows in grass sod to filter the water of sediment, fertilizer and pesticides before it leaves our field."

Following terraces, planting takes place on the contour. He says rock chutes—where field ditches drain into larger, deeper ditches—are also continually added to the operation to help eliminate what he calls "eat back" from field ditches into the acreage.

Murphy says it's interesting to see the effects no-till has on soil organic matter and adds that the best seedbed is the one nature prepares.

"Back when we were really cultivating the cotton ground, the organic matter in our soil tests would be 6/10ths or 7/10ths of 1%, really low," Danny says. "When I did samples last fall, the lowest one was 1.3% and up to about 1.8%. So, I think if we continue to incorporate

cover crops, we can build that organic matter up to 2% on most of the farm. Soil organic matter does so much for water-holding capacity and water intake and limits erosion."

From the Ground Up

Cover crops are key to the Murphys' conservation efforts with wheat, black oats or cereal rye seeded on about 50% of the acreage, mostly after a corn crop on acres that will transition to soybeans.

Because weed control normally begins on corn ground in mid-to-late February, Danny says the timing doesn't allow ample opportunity for a cover crop to grow before corn.

"We are seeing benefits to the cover crops," Danny says. "It's helping build organic matter, and it seems that a mat created by a good growth of a cover crop aids in weed control. We will continue to experiment, hoping to find the right species of cover crop and planting time for a cover crop before corn."

Though challenged in determining what varieties will be most effective, looking

"To me, sustainability is a continuous journey producing crops and doing your best to minimize impacts on the environment and conserving our natural resources."

—Danny Murphy, soybean farmer, Canton, MS

to the future, Danny says he is now ready to fine-tune their production plan to additionally benefit from cover crops.

“I think cover crops were something we were missing early on,” he says. “We weren’t doing that as much then, and now we’ve been doing more the last five years. Soybeans work well with a cover crop.”

Always striving to increase his conservation efforts, Danny learned recently of a five-way cover crop mixture that aimed to grow 10 tons of green matter over the winter before spring planting.

“That’s really fascinating to me to think about what we might do to get that and what it might mean for our summer crops with corn and soybeans,” he says.

Danny furthers stewardship efforts by planting wildlife food plots in the summer and winter. Installing pollinator and monarch plots, leaving standing crops and using Conservation Reserve Program acres as well as tree lines and woods to provide shelter and habitat for deer, turkey, rabbits and dove solidify the farm’s commitment to the environment.

“To me, sustainability is a continuous journey, producing crops and doing your best to minimize impacts on the environment and conserving our natural resources,” he says.

Yet, in a day and time when protecting the bottom line is paramount, finding a balance between profitability and land stewardship can be challenging for some farmers. For Danny, though, conservation has made a home on the operation’s balance sheet.

“Our no-till production system was a huge step in our sustainability journey, enabling us to reduce labor, diesel fuel, equipment and reduce soil erosion,” Danny says. “We want to make sure that we’re getting a return out of any input we put into the crop. Sustainability and conservation efforts really start with profitability. If you’re not profitable, you can’t be sustainable.”

Living Out a Conservation Legacy

When his grandfather purchased the family farm more than 75 years ago, Danny says he laid the groundwork for the operation’s success with conservation and land stewardship. His father continued those efforts, and now Danny and his brother Tommy work to advance them.

While neither Danny nor Tommy have children interested in farming, the brothers are hopeful the conservation legacy their family has built can press on in the future.

“There are several young farmers in the area, and we’ll have to find one that wants to no-till the land,” Danny says. “I would like to make sure that continues and that they want to take care of the land. That will be an important part of our decision when we look for a renter down the road.”

As Danny and Tommy Murphy live out the family’s conservation legacy, they don’t stop short of sharing their success story with others.



“It’s important to me to help feed people. That’s what a farmer’s job is, and in so many parts of the world, farmers need some additional help.”

— Danny Murphy

“We try to work with our neighbors to reduce any anxiety they might have about our farming practices,” Danny explains. “I have presented programs on farming and farm issues to local service clubs and provided tours for our county leadership training.”

With nearly 50 years of farming under his belt, Danny is a pillar of conservation accomplishments. He has twice been the state winner in the no-till category of the National Corn Growers Association Yield Contest and was selected as the Mississippi Farmer of the Year by the Sunbelt Expo. He also served 10 years on the American Soybean Association Board of Directors and was elected president in 2013.

As the Mississippi farm team lead for the Farm Journal Foundation, Danny works on local nutrition and food security issues as well as global agriculture development. He says the Foundation’s overall mission is to reduce hunger around the world and to assist farmers in those areas with the necessary tools to guide their own food production efforts.

“It’s important to me to help feed people,” Danny says. “That’s what a farmer’s job is, and in so many parts of the world, farmers need some additional help.”



**WHETHER IT'S THE PACKAGING OR WHAT'S INSIDE,
U.S. SOY MAKES IT MORE SUSTAINABLE.**



Learn more at ussoy.org.

US SOY



©2021 United Soybean Board. 61007-13 2/21



We are *here for you*

Chances are, you've seen us around the house, or around the yard. In the store, or even out in the field. In fact, families and farmers have turned to Bayer for six generations and counting.

Because for over 150 years, we've been right by your side. Advancing the health and nutrition of everyone you love.

Thank you for trusting us, then and now.

bayer.us [@BayerUS](https://www.instagram.com/BayerUS) [bayerus](https://www.facebook.com/bayerus)

Science for a **better life**

