2024 SUSTAINABILITY REPORT

# STRENGTHENING OUR COLLECTIVE IMPACT.

Farm Credit Services of America

AgCountry Farm Credit Services

Frontier Farm Credit

# OUR 2024 REPORT

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# GROWING STRONG

*When we established a sustainability program three years ago, we pledged to leave all decisions regarding production practices and technology to farmers and ranchers.*

The role of AgCountry Farm Credit Services (AgCountry), Farm Credit Services of America (FCSAmerica) and Frontier Farm Credit is to engage with those interested in ensuring the U.S. food system is sustainable for generations to come. The Associations, which operate as a collaboration, also are here to provide education for sound decision-making and enable the adoption of sustainable practices through lending, partnerships and more.

## OUR SUSTAINABILITY PROGRAM HAS GROWN EACH YEAR.

So have the opportunities – and demands – to do more as an agricultural industry. Some of the opportunities that existed in 2024 are less certain in 2025. Others could emerge in the months ahead. There is a continual ebb and flow to the sustainability landscape and this report reflects what it looked like in 2024. While we can't predict at the time of this writing what the future holds for some of the programs highlighted on the following pages, we are certain of one thing: Sustainability remains an important part of agriculture.

Companies in and out of agriculture increasingly turn to producers to help them offset their own environmental impact. Many farmers in our territory have been offered carbon credit contracts that pay them to sequester carbon. Farmers also are being asked to attach a carbon intensity (CI) score to their grain; depending on federal guidance, the scores could help end-users, such as ethanol plants, qualify for 45Z tax credits.

Government has been an important partner in advancing sustainable practices and technology, even as it set higher standards for taking advantage of certain programs. A number of producers we serve have installed solar panels and other energy-saving measures through USDA Rural Energy for America Program (REAP) grants, paired in some instances with loans through us.

Perhaps the greatest driver of sustainability is the consumer. From farm to table, the food supply chain is adjusting to consumers who increasingly want to know more about what they are eating, including who is growing it and how it is being produced. California's full implementation of Proposition 12 last year was the result of consumer interest in the treatment of livestock. We have chicken and hog producers who opted out of the California market because it didn't make financial sense to build housing facilities that complied with Proposition 12. Others invested in new barns rather than lose access to the largest consumer market in the U.S.

Every decision a producer makes involves risks and rewards. While sustainability is no different, this space is evolving quickly. At times, new practices and technology seem to outpace the data and insights producers need to make good decisions. This is where we come in. Helping producers break through the noise to make informed, financially viable decisions is central to our sustainability program.

We highlight some of the ways we are supporting producers on the pages that follow. This includes the results of a producer survey to inform our work in the sustainability space, partnerships with outside organizations that share our commitment to building a resilient agricultural industry and stories of customers whose sustainable practices are driving change in their operations and the industry.

WELCOME TO OUR THIRD ANNUAL REPORT ON SUSTAINABLE AGRICULTURE IN OUR COMBINED EIGHT-STATE TERRITORY.

# YOU FIRST

An Iowa customer contacted his relationship manager last year to discuss a project that offered efficiency gains and cost savings. If he paired financing through us with a grant from the Rural Energy for America Program (REAP), he could purchase solar panels to offset some of his power needs. The project would pay for itself within a year if he received the grant.

His relationship officer has a farm of his own. When he compared what solar could do for his operation, he couldn't make it pencil out, even with a REAP grant. The difference was how their respective utility companies reimbursed customers for solar power generation.

I share this to illustrate what all of us in agriculture understand: There is no simple, one-size fix for making individual operations and the industry more sustainable. Financing sustainability is no different. We work daily with special interest groups, producers, industry leaders, policymakers and others to foster resiliency in the industry.

## OUR MESSAGE IN EVERY INTERACTION IS THE SAME: SUSTAINABILITY AND PROFITABILITY GO HAND IN HAND.

Our Iowa producer was awarded his grant and is in a better position to compete against larger, more established producers in his area. Others are pursuing changes that take longer to produce a good return. In addition to financing, they need a lender who understands sustainability. Patience and the right loan terms also can ease a producer's transition to profitability.

## THERE ARE MANY WAYS TO FINANCE SUSTAINABILITY.

The right way is the one that works for you. With this in mind, we surveyed producers this past year to learn more about their interest in sustainable practices and technologies, obstacles to adoption and financing needs.

## YOUR VOICES ARE BEING HEARD.

There is a growing understanding of the financial risks producers bear when they make changes on their farm or ranch. We are part of efforts to make those risks more manageable, reward producers for their efforts and remove financial barriers.

As we continue to expand and evolve our sustainability program, our focus is on you, our customers and stockholders. A survey helps inform our ongoing conversations; we share some of the results in this report. Just as important are the everyday conversations we have with farmers and ranchers. In the past year, we have developed education centered on REAP grants, carbon intensity (CI) scores and more because producers came to us seeking information, not just financing. When we sponsored a *Trust in Beef Tour* this past summer to foster producer-to-producer education, we heard from ranchers who are more confident about adopting sustainability practices.

We are here to be a resource and advisor for those interested in sustainability. All of us benefit from a more sustainable agricultural industry. It makes our food system more resilient, supports consumer trust and protects natural resources for future generations. I encourage you to reach out to your financial officer as opportunities present themselves or if you have questions.

Together, we can determine what opportunities and financing makes sense for your goals and operation.

MARK JENSEN
PRESIDENT AND CEO

# SEEKING CONTINUAL IMPROVEMENT

Sustainability isn't new to agriculture. Producers have always understood that their livelihood and legacy depend on good stewardship. But how sustainability is practiced is changing on operations like Tuls Dairies, where the introduction of manure lagoons generates power, breeding selection creates efficiencies and resource management benefits neighboring fields.

Continual improvement can be challenging. Sometimes it takes courage. Almost always, it requires partners, including lenders. Our survey of agricultural producers showed this, underscoring the importance of working alongside producers as they shape the future of sustainable agriculture.

> *To still be around in the industry, you have to continue to adapt and change. You have to look at what's not working for you and try to find out the reasons, then make a course correction. Sometimes it takes a lot of courage to do it.*
>
> -TODD TULS

# SUSTAINABILITY SURVEY

As technology shifts what sustainability looks like, producers are increasingly interested in adopting practices and strategies that help increase efficiency, improve profitability and set producers up to protect their land for generations to come. As financial cooperatives, AgCountry, FCSAmerica and Frontier Farm Credit are committed to providing our customers and the wider agricultural community with the information they need to be competitive.

This year, we surveyed 300 producers to better understand three things:

1. WHAT SUSTAINABILITY PRACTICES ARE PART OF PRODUCERS' OPERATIONS TODAY?
2. WHAT BARRIERS EXIST THAT PREVENT ADOPTION?
3. WHAT TYPES OF FINANCIAL PARTNERSHIPS DO PRODUCERS NEED FOR THE ADOPTION OF SUSTAINABILITY?

The survey respondents represented 15 Midwest and High Plains states. Most were owners and operators, including many producers who do not do business with our Associations. The size of the operations based on annual sales ranged from less than $250,000 to $15 million plus.

This is what we found.

## WHAT SUSTAINABILITY PRACTICES ARE PART OF PRODUCERS' OPERATIONS TODAY?

We asked producers about the practices and investments they currently use, as well as those they are interested in exploring in the next three years. We presented them with 10 common practices to get a better view of the state of sustainability.

**300** PRODUCERS
**15** STATES
**$250,000-15M+** GROSS INCOME PER OPERATION

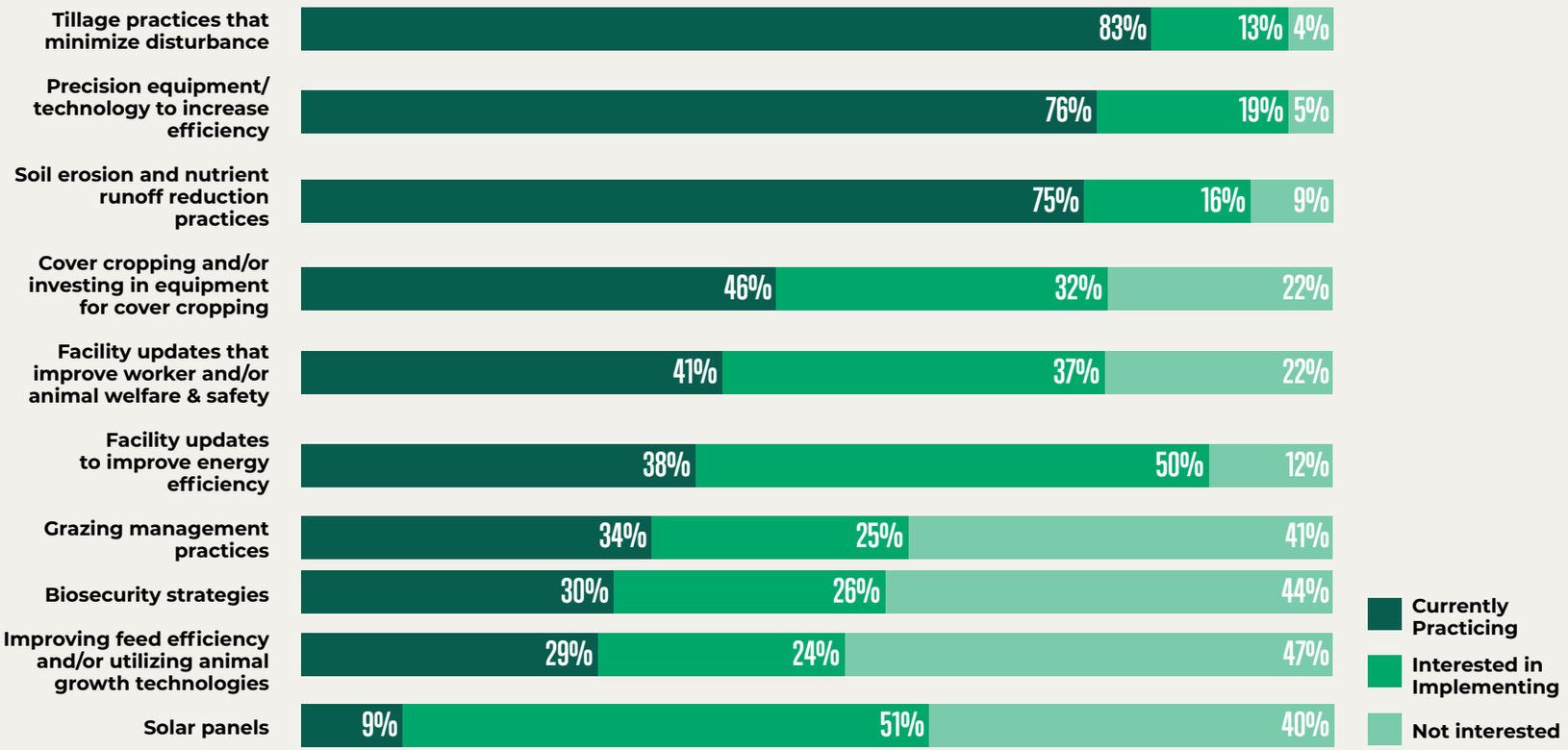
**83%** of producers reported using tillage practices that minimize disturbance (i.e., no-till or reduced-till).

**76%** reported using precision equipment and technology (i.e., to increase efficiency, lower energy use, decrease waste, improve precision or enhance soil conservation).

**75%** reported using soil erosion and nutrient runoff reduction practices, such as buffer strips and grassed waterways.

For most, these were long-standing practices that they said were good business strategies, delivering multiple benefits, including cost savings, operational efficiency and greater yield.

## WHAT SUSTAINABILITY PRACTICES ARE PART OF PRODUCERS' OPERATIONS TODAY?




The two most common reasons for adopting sustainability practices were:

THE DESIRE TO IMPROVE, RETAIN AND PROTECT THEIR NATURAL RESOURCES, INCLUDING LAND, WATER AND LIVESTOCK.

THE OPPORTUNITY TO IMPROVE PROFITABILITY OR RETURN ON INVESTMENT BY SAVING COSTS THROUGH EFFICIENCIES, IMPROVING PRODUCTION, ADDING REVENUE STREAMS OR REDUCING WEATHER RISKS.

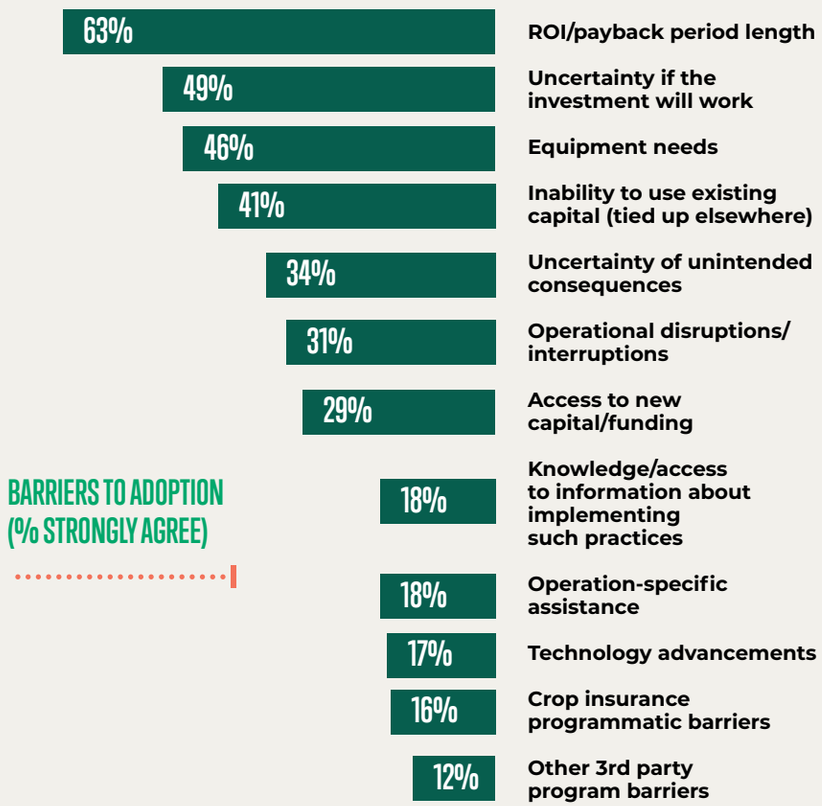
As they look beyond current practices to the future, producers report being most interested in solar panels (51%), facility updates to improve energy efficiency (50%), and facility updates that improve worker and/or animal welfare and safety.

## WHAT BARRIERS EXIST THAT INHIBIT THE ADOPTION OF SUSTAINABILITY PRACTICES?

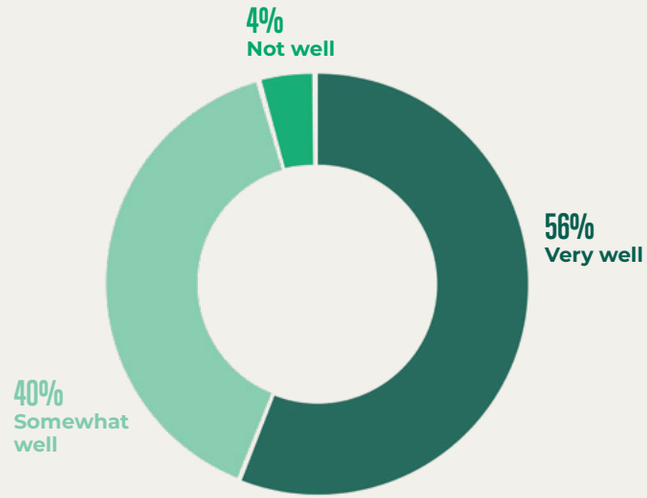
To understand the challenges that stand in the way of adoption, we presented producers with 12 common barriers and asked them to identify those that impacted them.

Their greatest concern was return on investment (ROI) or a delayed payback period (63%), followed by uncertainty that sustainable practices would work for them (49%), equipment needs (46%) and inability to use existing capital (41%). As a whole, the survey shows producers are interested in sustainable strategies, but financial barriers pose a significant challenge for many.

Operational impacts, including unintended consequences, knowledge and technology advances ranked lower, but still constitute challenges.




## HOW WELL CURRENT LENDER(S) MEET NEEDS RELATED TO SUSTAINABILITY PRACTICES




## WHAT TYPES OF FINANCIAL PARTNERSHIPS DO PRODUCERS NEED FOR THE ADOPTION OF SUSTAINABILITY?

We also asked participants about the level of support they get from their lenders, Farm Credit and otherwise.

While the majority of producers say their lenders do “very well” at meeting needs related to sustainability, 40% give their lenders a mark of “somewhat well.” This represents an opportunity for lenders to do better for their customers, as well as more room for them to be viewed as a partner for sustainable activities and a source for knowledge about which types of practices might be a good operational fit for different producers.

There is no shortage of barriers to starting or expanding sustainable practices. At the same time, lenders have opportunities to reduce some of those barriers. Sustainable agriculture will continue to be important to many of the farmers and ranchers we serve. Our Associations are committed to developing and delivering programs, lending products and educational resources that enable producers to adopt the practices that work for their operation, for today and tomorrow.

# DIALED IN

*Efficiency from every angle.*

At four farms in two states, Tuls Dairies produces 260,000 gallons of milk per day from 24,000 cows. Todd Tuls and his son T.J. own the operation and explain that their purpose is simple: Make more milk to help feed the world and positively impact the lives and communities we live in.

How they achieve that mission is far from simple. From meticulous animal care to nutrient management to financial analysis, the Tuls are constantly evaluating each piece of the puzzle to create a sustainable system.

As a third-generation dairy farmer, Todd Tuls has seen colossal change in the industry. He grew up bottle-feeding calves on his family's 400-head dairy farm in Chino, California. He later moved to the Midwest to build several large-scale dairy operations.



> *We know exactly what it costs us to produce a gallon or a pound of milk – to the penny. We measure, measure, measure, measure and measure. What you measure is what you achieve.*
>
> -TODD TULS

**260,000 GALLONS OF MILK PER DAY FROM 24,000 COWS.**

In 2000, he formed Double Dutch Dairy in Shelby, Nebraska. Today, he has a second dairy in Nebraska, Butler County Dairy in Surprise, and two in Wisconsin, Pinnacle Dairy in Sylvester and Rock Prairie Dairy in Avalon. Across the four dairies, he employs 400 people. A dairy operation at this scale requires a lot of out-of-the-box thinking. Tuls divides his efforts into four key management categories: waste, nutrients, genetics and finances.

*Our process is all about long-term sustainability – conserving water, recycling resources and preserving the land for future generations.*

-TODD TULS

## WASTE NOT, WANT NOT.

Tuls added covered lagoon anaerobic digesters at all of his dairy farms in 2023. He partnered with Maas Energy Works and Roeslein Energies to plan and build the digesters. FCSAmerica provided financing.

Large high-density polyethylene (HDPE) covers over the lagoons capture the methane gas from the manure and allow bacteria to break down the organic matter in the absence of oxygen. The captured biogas is then processed and refined into renewable natural gas.

“We’re keeping that methane gas and other contaminants from being out there in the atmosphere,” Tuls says. “I interviewed four different companies that do methane capturing, and we chose this system because it doesn’t disrupt what we were already doing operationally.”

The covered-lagoon system offered other advantages, including lower capital costs, reduced risk of manure leaks and greater storage capacity. Unlike some systems that store a few hours’ worth of gas production, Tuls says, the covers can store two to three days of methane gas production.

The renewable natural gas produced at the multiple lagoons is transferred to the nearest natural gas lines. Tuls is paid for the green energy source, creating additional revenue for the farm and reducing its greenhouse gas emissions.

*Year to date, we have heated the equivalent of 3,500 homes for a year – and we’re not even at full production.*

## MANAGE RESOURCES WISELY.

Tuls is systematic about managing every aspect of his operation to maximize resources. The operation, for example, has created a regenerative cycle for water and nutrients.

“Water is so important to us,” Tuls says. “After washing the milking parlor, we use that water to rinse our barns. It’s then filtered and used to irrigate local crops. We take water out of the ground — we use it, then put it back on the ground.”

As on-staff nutritionists develop their nutrient diets for the cows, they also are thinking about Tuls’ crop acres. Agronomists analyze the nutrient profile of manure from the dairies to ensure just the right amount is applied as fertilizer, reducing waste and controlling nutrient runoff.

“We’ve replaced a lot of petroleum-based fertilizers with the organic fertilizer off our cows on the farm acres surrounding our dairies,” Tuls says.

Many of the dairies’ neighboring farms also benefit. As he has expanded his operations, Tuls began partnering with local farmers. They receive some of his manure to fertilize their fields and he buys their feed, his teams often handling harvest and grain storage.

“Basically, I’m a fertilizer factory and feed consumer within five miles of these guys’ farms,” Tuls says. “It’s really a win-win. Altogether, we are utilizing the waste and nutrients off our farms on about 40,000 acres.”

## COWS BRED FOR EFFICIENCY.

About a decade ago, Tuls switched from the traditional Holstein genetics to ProCROSS genetics, a three-breed rotational crossbreeding system that combines VikingHolstein, VikingRed and Coopex Montbéliarde.

Tuls researched the breed for six months and interviewed several other farmers who use the genetics. Overall, he says, it has been a successful switch.

“We now produce a milk that is higher in butterfat and protein,” he says. “There’s a lower volume, but it is more of a concentrated milk. So, we’ve reduced our freight costs by doing this and enhanced the value of our milk.”

Additionally, these genetics allow the Tuls Dairies team to milk cows for about four years versus the traditional three years, lower death and cull rates and reduce time between breeding.

“These ProCROSS cows have just become a really huge asset to us that creates great efficiency,” Tuls says.

## FINANCIAL BASE HITS.

All these changes contribute to the bottom line, a key element of sustainability, Tuls says.

“Base hits are the way to win a baseball game; getting more RBIs is my philosophy,” he says. “I don’t need to hit the grand slams every day, although some years we still knock it out of the park. We just really focus on ensuring that we’re profitable each year.”

To do that, Tuls and his team use risk management whenever possible. They do all of their own milk hedging, grain hedging, beef cattle hedging and fuel hedging, for example.

“We know exactly what it costs us to produce a gallon or a pound of milk — to the penny,” he says. “We measure, measure, measure, measure and measure. What you measure is what you achieve.”

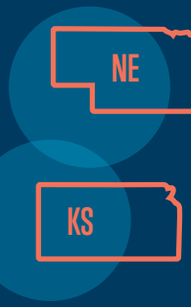

## 5 CORE VALUES FOR TULS DAIRIES:

Todd Tuls knows growth in the dairy industry takes commitment, smart business management and integrity. Since he was a young boy on his family’s dairy farm in California, Todd has been a student of the industry. When he was 19, he made a list of the best dairymen within 100 miles of his home. He would invite them to lunch and ask them a list of questions about how they found success. “It was just about trying to get to another level,” he says.

Decades later, some of those same lessons he learned from his dad and those fellow farmers appear in his core values that drive his operation.

1. DO IT NOW. YOU DON’T HAVE TOMORROW, BECAUSE TOMORROW HAS ITS OWN CHALLENGES.
2. MAKE NO ASSUMPTIONS.
3. TRUST BUT VERIFY.
4. ASK MORE QUESTIONS. WHEN YOU ASK MORE QUESTIONS, YOU LISTEN MORE OFTEN.
5. PRAY MORE OFTEN. THAT MEANS YOU ARE TALKING TO GOD, AND GOD WILL THEN TALK TO YOU.

# ANSWERING CONSUMER DEMAND




Markets that reward producers for sustainable practices can be found but they take work and patience to cultivate — and sometimes, serendipity. An opportunity for Jordan and Keith Carlson to do business with Walmart grew to include sales of their popcorn under the mega retailer's brand name.

Downey Ranch was among those who founded U.S. Premium Beef to give producers more control over the marketing of their high-quality beef. Consumer demand for high-quality beef continues to grow. Will they pay more for sustainably grown beef?

> *We need people and corporations to quit focusing on programs that incentivize one practice. Those are good, but if we want scaled change to happen, farmers need to be paid for what they are producing.*
>
> - JORDAN CARLSON

# TEST. MEASURE. ADAPT.

*The sweet science of sustainability.*

In his quest for efficiency, Jordan Carlson analyzes every step of his production process. What practices create a return on investment (ROI) for the family farm in Custer County, Nebraska? Where is he overspending? Where should he invest? Is the extra effort worth it?

“Obviously, yield matters, but profit per acre should be more important,” he says. “Most farms operate like a factory — product goes in, product goes out. We want to loop back as many things as we can.”

When Carlson returned to the family farm in 2008, he set out to expand on his father’s no-till practice. Ultimately, he says, they wanted to put carbon in their soil. His father, Keith, had gone to no-till in the late 1990s. Keith’s goal was to save labor and moisture on the farm, which receives about 20 inches of rain annually. Father and son came to understand just how much impact the practice also had on the health of their soil.

*“By using a cover crop, I’m bringing more energy into the system from the sunlight that I capture by having something growing more days of the year. Those things start to have an effect, and you see them in the soil.*

-JORDAN CARLSON

*If Carlson can implement his full crop rotation and cover crop management systems, his nitrogen applications are a fraction of the 200 pounds that is typical for traditional practices in his area.*

They decided to take the next step and diversify their crop mix. They added cover crops to their rotation and saw fertilizer rates and herbicide applications drop.

"You also see them by what you're not having to buy to put into the system. I don't have a fairy tale idea that we're going to never buy anything, but there's a lot of things we can do to cut that back."

The Carlson's constantly research different practices and applications to improve efficiencies and reduce their impact on the environment. In many ways, they manage their farm like an ecosystem.

Carlson does biomass samples of cover crops. He'll combine that with a Haney soil test, which measures the amount of nutrients available to soil microbes and evaluates other soil health indicators. He even looks at his soil under a microscope to gauge microbial diversity and trends. All this data lets him analyze where to invest his input dollars.

For the past decade, they have been doing block trials on every field to analyze various fertilizer rates. This has led to a reduction in their rates of synthetic nitrogen, the elimination of synthetic phosphorus and a shift to more compost and manure products. Today, most of their crops do not receive synthetic fertilizer, with the exception of corn.

One of their trials, which involved roller-crimping their hairy vetch cover crop, showed they could significantly cut nitrogen with little impact on yield.

"We cut 90 out of 170 units of N and maintained, within three bushels, our historical yield," he says.

The Carlson's have continued to build diversity into their operation. Today, they grow popcorn, white corn, cereal rye, hairy vetch, oats, barley, buckwheat and spring peas. These are rotated with a diverse mix of cover crops. They've also added a cattle herd.

"Our rotation is pretty complicated," Carlson says. "Our original goal was to find an alternative crop we could harvest in July so we could plant cover crop mixes. The challenge has been finding those crops that we can actually sell."

Market development for these niche crops, Carlson says, will be key to expanding regenerative agriculture.

*If there were markets for other crops, it would be a lot easier to make the sales pitch for sustainable practices. We need people and corporations to quit focusing on programs that incentivize one practice. Those are good, but if we want scaled change to happen, farmers need to be paid for what they are producing. That would give them an opportunity to make their own decisions.*

-JORDAN CARLSON

For the Carlson's, a relationship with Walmart grew to include a market for their popcorn. A few years ago, Walmart wanted to source sustainable beef from a nearby feedlot. The company needed feed from farmers who used sustainable practices and diverse crop rotations. Carlson made the connection, and the business relationship has grown. Walmart now sells the family's popcorn in its stores.

Sold under Walmart's Great Value brand, the two-pound bags of popcorn feature a QR code linked to a video showing how the Carlson's grow the crop.

"I've been really impressed with the Walmart team," Carlson says. "With our popcorn product, for example, they wanted to have a regenerative product. But they're not getting a lot of credit for it or even claiming it on the label. They just know the practices are the right thing to support."

In conversations with Walmart representatives, Carlson stresses that these types of win-win relationships will encourage other farmers to adopt regenerative practices. "If farmers are wondering why the heck they are doing this extra work, this shows it actually matters to Walmart, and it should matter to their customers, too," he says.

After more than a decade of experience with regenerative practices, Carlson is the first to admit breaking away from traditional ways takes more time and effort. "There's been a few times my family has sat down and said these practices are making our work harder — not easier," he recalls. "We asked, 'Should we be doing this?' We've tried a lot and had to learn the hard way. What we're learning is that, in general, it is worth the effort. It is definitely more work. But it's been really rewarding."

# CASHING IN ON CARE

*Healthy land, animals and ROI.*

Progressive cattle producers knew their production methods were creating high-value cattle. But they were getting paid the same amount as producers not reaching those high standards.

In 1996, a group of beef producers formed U.S. Premium Beef, which is a fully integrated and consumer-driven beef processing company. Two of those producers were the owners of Downey Ranch, Barb Downey and Joe Carpenter. Like all cattle marketed through U.S. Premium Beef, the couple is financially rewarded for their superior cattle.

"Now we get paid for our cattle being above average when it comes to quality," Downey says. "It's letting the market work and rewarding high-quality producers. For the past two years, we've averaged about $85 per head over the market with our cattle for carcass premiums. We anticipate this number to be stronger in 2025."

*"In the future, I see us needing to be part of a supply chain, all the way to the retailer and consumer. Whether or not the consumer is really going to send the signal with their dollars that they want to know about sustainability practices remains to be seen. But that is at least on our radar.*

-BARB DOWNEY

ENVIRONMENTAL STEWARDSHIP AWARD WINNER

AVERAGING $85 PER HEAD OVER MARKET FOR CARCASS PREMIUMS AND HOPING TO BE MORE IN 2025.

Producers in the program receive carcass data on every lot sold, which helps them improve their management practices. Beyond the financial rewards for high-quality beef, Downey says their relationship with U.S. Premium Beef provides them a view of consumer trends.

Even though the beef market doesn't currently reward for sustainable production practices, Downey and Carpenter know their Wamego, Kansas, operation is on the right path. They continually analyze how to make their operation better, whether it be through higher-quality cattle, healthier soil or greater profitability. The couple is always open to introducing new practices and technology to their cow-calf operation. But anything new must be at a safe-to-fail scale.

"Every challenge or problem, if you think about it long enough, is an opportunity in disguise," Downey says. "Sometimes it takes a challenge or a problem to push you off center. If you use that as a chance for improvement, then it's an opportunity."

One of those challenges came in the form of an extremely wet fall. As the baler pushed out the last bale from the field's first cutting, the rains began. By the time they could return to the field to move the bales, the sorghum sudangrass regrowth stood three feet high.

"We had been talking in theory about bale grazing for a fair number of years, but it was hard to make the jump," says Carpenter, recalling that year in the early 2010s. "But as we started removing the bales, the crop underneath was just getting trampled. So, we thought, 'This is the point where we try bale grazing.' And we just quit removing the bales."

After the first frost, they fenced off a portion of the field that contained about two days of standing forage — including the bales — for a certain number of cows. After two days, the fences were adjusted, and the cattle moved. No hauling, stacking and storing bales required. "It worked absolutely beautifully," Downey says. "Now, we deliberately do it every year."

Downey calculates that the practice saves the ranch more than $10,000 in annual labor and equipment costs. With Downey and Carpenter's 550 cows across 6,000 acres of mostly tame grass, one person would spend a full day in a diesel truck with a bale bed moving hay to various fields. Now that same person can simply move a paddock fence. "In 30 minutes, you can line up the cows with feed for the next two days," Downey says.

Bale grazing's benefits also show up in the soil health data. After the first cutting of the sorghum sudangrass, the Downey Ranch team drills a cover crop mix into the pasture. This provides a living root all winter, as well as additional healthy forages. The cattle graze a field, then the pasture is allowed to rest and regrow for 40 to 45 days.

One of Downey's pastures had been in tame, introduced grass for several decades. The soil's organic matter measured in the 2% to 2.5% range. Now, after these shifts in production practices and cattle grazing, organic matter has hit 3.5% to 4.5%. She says the higher organic matter has supported legume growth and the soil's water-holding capacity.

"It's just more resilient ground," she says. The couple's team uses low-stress cattle handling to move the animals between paddocks. This happens at least every other day, providing regular monitoring of the herd's health, Carpenter says.

> *Low-stress handling is probably the No. 1 life-changing practice we have learned. We'd always been gentle with our cattle, but this kind of took it to the next level.*

This level of care starts at birth. Calves are tagged and weighed when they are born. Before returning to their mothers, the calves are rubbed and calmed by the Downey Ranch team. As they grow, the team uses fence-line weaning, which provides social interaction between the mother and calf and reduces stress for both.

“Back when we started this, we used to have some fairly protective mothers, which is not all bad,” Carpenter says. “But we would work 15 or 20 calves on the back of a truck to preserve our own health. With these practices, we haven’t had an issue with an overly aggressive cow in 15 years.”

Downey’s and Carpenter’s most recent “safe-to-fail experiment” was solar-powered collars for their herd. Combined with virtual fencing, the collars, from the New Zealand-based company Halter, send signals that help direct cows to specific grazing areas. After testing, the couple collared every cow, increasing their grazing capacity without additional labor or physical fencing.

For Downey and Carpenter and their two daughters, sustainability is a complete system, one that requires many levels of investment. “A lot of times, when people want to talk about sustainability, they just want to isolate practices. But you have to think about the whole system and how all those things we talked about interact.”

*Sustainability is for our operation to be here 5, 10, 20, 50 years in the future. To us, that means you have to have human resources who want to be there. You have to have financial resources that enable everybody to be there. Then you have to have a production system in place that gives you a net positive return.*

-BARB DOWNEY

# INNOVATING WITH PURPOSE


Water is Chase Larson's most precious resource. Rainfall is limited on his north-central Kansas farm, and the state monitors draws from his wells. Larson recently developed a software platform that changed the way he manages his water and his yields are up.

It is this kind of proactive, producer-directed change the Kansas Water Institute tries to foster. Two recent projects supported by our Associations took different approaches — on-farm testing and producer-to-producer conversations. But each recognized the central role producers play in smart resource management.

*"If you look at your water balances continuously, you manage them differently. That is what happened with us. We started seeing the numbers, and I realized I could raise better crops now that I know I have more water.*

-CHASE LARSON

# CONSERVATION THROUGH INNOVATION

*Measurable insights lead to effective management.*

Water shapes every decision on Bestifor Farms in Belleville, Kansas, a small community in the north-central region of the state that receives about 28 inches of rainfall annually.

For decades, irrigation wells in Kansas have had meters that measure water use, and farmers receive permits or water rights for specific amounts. This helps protect groundwater supplies but also makes growing crops a complicated puzzle as farmers must stay below their allocation — or face fines.

Chase Larson, CEO of Bestifor Farms, knows he won't get more water for his hay, forage and grain crops. Instead, his focus is on using the same or less water to irrigate more acres.

"We can raise excellent corn in our area, but our No. 1 issue is drought," he says. "If we could time the rains, we're great with 28 inches. The problem is it doesn't come during our main growing season sometimes, so we need to supplement it with irrigation."

> *Water is my most precious resource. I start with how much water I have and then I work backwards and determine my crop, plant population, fertilizer, etc.*
>
> -CHASE LARSON

FARM JOURNAL'S TOP PRODUCER FINALIST

For years, Larson sent dozens of people out across Bestifor's 12,000 acres to take meter readings on irrigation wells during a twenty-week irrigation season. He knew there had to be a better way. He combined his in-the-field experience with his interest in software to found VandWater, a software platform that he and his team developed to manage water usage from every well in his operation. His water usage hasn't changed, yet his yields have increased.

"With VandWater, I can use the same or less water to irrigate more acres. Part of it is technology and part of it is knowing and managing your resources correctly. When you can merge those two together, it's instant sustainability."

Larson completed all the VandWater beta testing at Bestifor Farms. After he knew it worked and was a valuable tool, he made it commercially available to other farmers in 2023. VandWater is compatible with all water meters, which means every sector of agriculture — from irrigated farms to livestock and dairy operations — can more accurately measure and plan water usage as well as better manage risk. VandWater also can be used by municipalities and water districts.

"Our goal was to build something that went from meter to report," he says. "We didn't want to manipulate the data in any way so we could protect the integrity of the data."

"Also, our software would be the third-party verifier for sustainability practices, detailing exactly how much water it took to grow a crop. Hopefully down the road our customers will be compensated for putting a system like VandWater in place."

VandWater works by attaching a token with a unique identifier to each water meter. Once the token is scanned with the VandWater app to enter a reading, data starts flowing into the system. VandWater users can see everything from irrigated acres in a field to water use history to how many gallons per minute a pump is running via VandWater's app or desktop system. That data, Larson says, is a powerful management tool.

"It's a little bit like working out. If you work out, you eat healthier," he says. "And if you look at your water balances continuously, you manage them differently. That is what happened with us. We started seeing the numbers, and I realized I could raise better crops now that I understand that I can spread the same amount of water to more acres."

Larson's confidence in the product was boosted by being named one of 15 Kansas Water Technology Farms through the Kansas Water Office. By participating in the program, Larson is helping develop and test modern irrigation technology. Bestifor Farms was also a tour stop for the program, allowing other farmers to learn from his personal research and subscribe to VandWater.

"We sign up people all the time," he says. "I haven't advertised yet, so all of our customers come from farmers telling their friends. Essentially our customer base is anyone who has a water meter and wants to track their water."

As a sixth-generation farmer, Larson is on a constant quest to make his operation grow and continue into the future.

> *I always thought I was short. But on one farm, I went from irrigating 370 to 780 acres – using pretty much the same amount of water.*

> *Sustainability is passing these resources on to the next generation. Farmers are labeled as water users, which can be seen as negative, especially if you hear the word 'groundwater.' We want to be proactive. Sustainability is not always doing less; it's making more productive acres.*
>
> -CHASE LARSON

# PRODUCERS LEARNING FROM PRODUCERS

*Local conversations drive global impact.*

Data-driven comparisons of technology tested on neatly laid-out experimental fields have their place in Kansas' efforts to conserve and protect its water supply. But producers need actionable information now.

"That's where the Flickner Innovation Farm and other demonstration sites in Kansas fit in," says Susan Metzger, director of the Kansas Water Institute (KWI) and the Kansas Center for Agricultural Resources and the Environment (KCARE).

Technology and practices are trialed in real time by producers who then share with other producers what they are learning: This is my yield. These are the challenges I had maintaining the system; getting a technician to come out; or receiving and managing data.

"This accelerates the knowledge transfer and, hopefully, the adoption of best practices." Metzger says.

> *At any given time, I would say we have 10 to 15 independent research projects happening at the Flickner Innovation Farm.*
>
> -SUSAN METZGER

**MORE THAN 60% OF KANSANS RELY ON SURFACE WATER IN EASTERN KANSAS.**

One of the Flickner Farm projects involves 360 RAIN, an autonomous irrigation system that uses a three-wheeled vehicle to deliver water directly to the base of plants. Our Associations were asked by KCARE to write a letter of support for the 360 RAIN system grant, as well as for a separate grant tied to the Ogallala aquifer in western Kansas. Our Associations also provided some funding for the Ogallala project.

“It would be one thing for a university to submit an application and say, ‘We’re going to do this thing.’” Metzger says. “But if the people that are part of that food and ag supply chain aren’t with you from the beginning, then it’s just lip service. We had those providing the financing all the way up to consumers contributing letters of support that said, ‘The way this project is framed is important. The outcome is going to be important, and we want to be a part of it.’”

Livestock operators who rely on the Ogallala aquifer account for about 2% of reported water usage. But about 58% of the state’s food and ag industry is tied to livestock production. The grant aimed to bring beef and dairy operators into water conservation conversations that, in the past, focused more on irrigators. An outside firm took an “almost war-game approach,” asking participants how they would “win the war against the Ogallala’s decline and be productive in the future.”

## 5 PRINCIPLES GUIDING THE KANSAS WATER INSTITUTE:

1. CONSERVE AND EXTEND THE OGALLALA HIGH PLAINS AQUIFER.
2. SECURE, PROTECT, RESTORE WATER RESERVOIRS.
3. IMPROVE WATER QUALITY.
4. BUILD RESILIENCY TO EXTREME CLIMATIC EVENTS.
5. INCREASE AWARENESS OF KANSAS WATER RESOURCES.

Organizers used state data to identify feedyards, then drew 10-mile circles around them to determine invitees to the listening sessions.

*Rather than having this big global conversation about what are we going to do to slow the decline of the Ogallala, we created really localized conversations, where they could make their own tailored decisions.*

-SUSAN METZGER

Some of the benefits of these conversations extend beyond water conservation. A livestock producer might have been railing in corn but now was talking to a grain operator who could be a local source of reliable forage.

Conversations are the first step toward meaningful changes. The Sheridan 6 Local Enhanced Management Area (LEMA) in northwest Kansas is one of the best examples of local stakeholders developing and implementing groundwater conservation plans, Metzger says.

Producers and others within a 100-mile area committed to changes that equated to about a 30% reduction in water use. That was about 15 years ago, Metzer says, “and they’ve reached a point where they’re stabilizing the aquifer in most years, aside from years with severe drought.

“It’s newer, but we’re seeing the same thing now in Wichita County, where there has been a really aggressive, self-defined water conservation plan. This is encouraging because one of the barriers is that people will say, ‘How do I know that conservation actually makes a difference for me? Surely, if I conserve the water, my neighbor will just use it or the water will move downstream and I am the one who has lost economic productivity in the name of water conservation.’”

The more use cases that show water conservation works, the easier the conversations, the bigger the impact, Metzger says. “Me showing up with a chart is not the same as two people who live in the same region talking and making commitments and sharing information.”

*34% OF KANSAS’ ECONOMY IS TIED TO AGRICULTURE AND FOOD PRODUCTION. NEARLY 90% OF WATER USAGE IN THE STATE SUPPORTS THIS FOOD SYSTEM.*

# PARTNERING ON PRACTICES AND PROFITABILITY


Finding the right conservation program or marketing opportunity can be overwhelming, akin to searching for a needle in a haystack. Two organizations that we work with — Farmers for Soil Health and the Conservation Technology Information Center — launched tools in 2024 to make it easier for producers to connect with conservation programs and commodity buyers. Our Associations were among the companies that helped shape these one-stop shops for locating programs and selling direct to buyers.

Ed Hegland, an AgCountry Board of Director, has leveraged conservation programs over the years to adopt and expand sustainability practices on his Minnesota farm. Eligibility and fit can change from year to year, which is why he is always on the lookout for programs that meet his goals. But at this point, the benefits of his practices are what shape his decisions.

> *These practices work, and they have allowed me time to go see my kids at track meets and baseball games in the spring and football games in the fall because of that reduced labor requirement. That is irreplaceable time.*
>
> – ED HEGLAND

# CONNECT AND SHARE

*Helping growers find the right opportunities.*

Agricultural producers have no shortage of opportunities to introduce or expand conservation practices to their operations. The availability of information, technology and monetary support continues to grow. The challenge for farmers and ranchers can be finding the right opportunity and best information for their specific needs and goals.

Enter the Conservation Technology Information Center (CTIC). For more than 40 years, CTIC has worked to be a trusted resource for agriculture.

Executor Director Ryan Heiniger says the nonprofit CTIC — which started as a bridge solely focused on soil between private industry and agriculture — builds strength from across the agribusiness, commodity and conservation worlds. CTIC, which is supported by the U.S. Environmental Protection Agency, USDA Natural Resources Conservation Service and other public entities, has broadened its focus to also address water, air and wildlife.

> *“A group of leaders came together and said, ‘We have the technology emerging, we have more information and science. Let’s come together and further support farmers and ranchers to try to reduce soil erosion.’*
>
> -RYAN HEINIGER

**40 YEARS AS A TRUSTED RESOURCE FOR AGRICULTURE.**

It both leads and participates in projects aimed at advancing voluntary and incentive-based conservation in the agricultural industry. CTIC works to provide practical, proven practices that ultimately support productivity and profitability.

Collaborative efforts include CTIC's contract with Farmers for Soil Health (FSH) to be a service provider in three of the 20 states where FSH supports the adoption of sustainable growing practices, including through payments that support producers during their adoption and expansion of cover crops to boost soil health.

CTIC has three full-time soil health specialists in Minnesota, South Dakota and Wisconsin. The specialists were hired through a USDA Partnerships for Climate Smart Commodities grant awarded to the National Fish and Wildlife Foundation to administer FSH. They provide education and promote participation in the FSH program. Additionally, CTIC has partnered with nine producers with extensive, first-hand knowledge in soil health and cover cropping and deployed them as Cover Crop Coaches — to also answer producer questions.

"The goal is to reduce barriers, or de-risk the practice, by sharing information because, let's be honest, there are opportunities for things to go awry," Heiniger says.

*Having these farmers who have been there and done that before and who are passionate about sharing their expertise ultimately makes farmers enrolling in Farmers for Soil Health more successful and reduces that learning curve for this practice.*

-RYAN HEINIGER

CTIC also has its own, long-standing educational programs. This includes its annual Conservation in Action Tour, which is being held in Sioux Falls, South Dakota, in 2025. For the past 18 years, CTIC has brought producers, agronomists and other advisors together to share workable solutions for making operations more sustainable and profitable.


How CTIC shares information has evolved, just as its areas of expertise have expanded. But the original purpose of CTIC — to collect and share knowledge about conservation in agriculture — remains unchanged.

This past November, CTIC launched the Conservation Connector, a first-of-its-kind directory of conservation programs that agricultural producers can use to find financial and technical assistance.

CLICK TO SEE APP

The connector app is partially funded through a USDA Partnerships for Climate Smart Commodities grant to Wolfe's Neck Center and other contributors include The Nature Conservancy and Walton Family Foundation. Producers and industry organizations, including FCSAmerica, provided guidance on the design to make it as useful as possible.

The directory includes government, private and not-for-profit programs, serving as the one place where users can search for programs by crop, conservation practice and geography. The goal is to help producers quickly zero in on programs that are available in their area and fit their operation or technical needs, Heiniger says.

Many partners collaborated to ensure the directory is robust, Heiniger says.

> *The industry identified the critical importance of having this information. Producers have an almost overwhelming number of opportunities.*

About 200 service providers were listed on day one. "This number is expected to grow daily as more people become aware of it," he says. "And we certainly expect this prototype to gain additional functionality."

Already, locating conservation or sustainability opportunities is easier. As usage picks up, Heiniger says he envisions a producer sitting down with an advisor, such as their Farm Credit financial officer, and digging into the information available to them to make a decision that improves both their operation and profits.

# FARMERS, MEET BUYERS

*Opening new markets for sustainable producers.*

Farmers for Soil Health is an example of agricultural producers working together to create a market in which they are rewarded for conservation practices. It is one of the first initiatives that grew out of a collaboration between the National Corn Growers Association, National Pork Board and United Soybean Board, resulting in a USDA Partnerships for Climate Smart Commodities grant — the second largest to date — in 2023.

The program has two key components: Payments to producers to offset some of the cost of starting or expanding conservation practices and an online Marketplace, where producers can sell their sustainable commodities direct to companies interested in rewarding them for their efforts.

FCSAmerica and Frontier Farm Credit were part of the Corporate Advisory Board that helped develop the Marketplace. We asked Ben West, head of Farmers for Soil Health, and Christy Melhart Slay, leader of the Corporate Advisory Board, to talk about the program's first year of operation. In addition to their roles at Farmers for Soil Health, West is with the University of Tennessee Extension and Slay is CEO of The Sustainability Consortium.

## ENROLLMENT AND VERIFICATION:

Enrollment is open through February of each year to farmers with corn/soybean rotations in 20 states. The program supports those who are expanding their cover crop usage, as well as those just getting started. Specific fields can have a history of cover cropping, just not in the immediate year before enrollment. Enrollment comes with technical expertise and transition incentive payments (TIP) and/or signing incentive payments (SIP).

## A TOTAL OF $50 PER ACRE DURING A THREE-YEAR PERIOD IS AVAILABLE THROUGH TIP:

1. $25 IN THE FIRST YEAR
2. $15 IN THE SECOND YEAR
3. $10 IN THE THIRD YEAR

SIP provides $2 per acre for up to 600,000 acres of existing cover crops annually. Participants also can choose to enroll in the Farmers for Soil Health Marketplace, where farmers with cover crop acres can sell direct to consumer, packaged-goods companies seeking to meet sustainability goals. Farmers' cover crop plantings are verified by remote sensing and self-certified by the farmer.

All program activity was paused in early 2025 as part of the federal government's review of funding priorities. Click here for updates and to learn more about Farmers for Soil Health in your state.

## Ben West:

*We've gotten really good feedback from the farmers. The selling point for our program has been, No. 1, it's not competitive like an EQUIP Conservation Incentive contract. Any farmer can sign up; they don't have to compete to be in our program.*

*We have also gotten feedback that our payments are too low. If we had to do it over, we probably would have bumped the payments up. A lot has changed in the three or four years since we wrote the grant for Farmers for Soil Health. Our payment at the beginning is less than other programs, such as EQUIP. But we know the amount of money a farmer gets is not the only deciding factor. Our program was designed to be very easy. Enrollment is simple, verification is simple. We've gotten feedback that farmers like that.*

## Christy Melhart Slay:

*The Farmers for Soil Health Marketplace is a game changer. It is the first platform that enables growers to connect directly with buyers; they're not dependent on somebody in the middle to help negotiate. When farmers enroll in Farmers for Soil Health, they can also indicate they want to be enrolled in the Marketplace. Now let's say a food company wants to purchase environmental benefits, such as acres of cover crop practice in four counties in this state.*

*Participating farmers in those counties get an alert: You have a buyer. The food company will post an offer of how much they are willing to pay for the acres of cover crop. Farmers can decide who they want to interact with. They can go back and forth on the price or accept the price immediately. On the farmer's side, it is democratizing. They have the ability to make decisions for their farm — to sell their environmental benefits to who they want and for the price they want.*

## Ben West:

*There are so many parts of the Marketplace that are innovative and important. I've never heard Christy call it democratizing, but it is exactly that. I think the price transparency is so important. We all get this question all the time: What is a ton of carbon worth? We have no idea because there is no transparency in it. You know what something is worth when you know what someone is willing to pay for it, and what someone is willing to sell it for. We do not have data about that.*

*Transparency reduces financial risk and volatility. That is good for everybody — buyers, sellers, the whole sector. The agricultural sector is always going to be competitive. We're going through a rough time right now. Farmers are. The farmers who are going to be successful long term are those who are able to diversify their income as much as possible. Part of that is revenue from sustainability — adopting sustainability practices, as well as the payments themselves.*

# GROWING OUTSIDE THE BOX

*Bold practices deliver big results.*

Adopting sustainable agricultural practices has required Ed Hegland to get comfortable with the uncomfortable. His practices raise eyebrows at times, and he isn't always certain of the outcome. But a willingness to experiment, and financial support from conservation programs, have led to continual improvements to his production, costs and soil health.

"I tested strip-till for three years in a row before I bought a strip-till machine," Hegland says. "Then I tested no-till for three or four years before I got rid of my strip-till machine. I'm not a real risk taker, but I am very flexible to change."

Initially, economics drove his decisions to adopt more sustainable practices. That hasn't changed. After earning an agronomy degree from the University of Minnesota, Hegland joined his father on their family farm in Lac qui Parle County in 1992. His father began his career as a county conservationist, so regenerative practices, such as tree lines for erosion control, wildlife habitat and terraces on farm slopes, were well established in the operation.

> *"...it is becoming more and more important to me to see the environmental benefits of these practices.*
>
> -ED HEGLAND

At the farm's helm, Hegland started no-tilling soybeans and evaluating all his production practices. In 2005, a neighbor invested in a strip-till machine and Hegland leased it from him to try it on about 80 acres.

"In 2008 I bought a strip-till machine through the Environmental Quality Incentive Program," he recalls. "I really liked what I was seeing with less fuel usage, less intensive tillage and less equipment needed."

At one point, his fuel supplier stopped to ask if he had been replaced by another provider. "No," Hegland responded. "I started strip-tilling." The supplier didn't know what strip-tilling was, so Hegland showed him his strip-tilling machine, explaining that it reduced his need for fuel.

Soon, Hegland started unloading his tillage equipment; he wasn't using it, and selling it kept him from returning to former, more-intensive tillage practices. In 2013, he upgraded his strip-tillage machine to one that would let him apply variable-rate fertilizer.

That funding came through a five-year contract with the Conservation Stewardship Program (CSP).

*That was a really big step for me to take to know that I'm putting the right fertility where it needs to be.*

-ED HEGLAND

In 2014, Hegland faced an extremely wet spring. He couldn't plant about 280 acres. His local contact at the National Resources Conservation Services office suggested planting cover crops on those acres.

While new to the practice, Hegland thought he might as well try it. He planted a combination of radishes, annual rye grass and oats. That fall, he strip-tilled into a thick mass of cover crops.

"By the next spring, all of that had died, and I could see the strips perfectly," he says. "These were not my best fields. But I grew my best corn, by far, that year after those cover crops. A light bulb went off for me."

Hegland planted cover crops on more of his acres. He signed up for another CSP program and reintroduced wheat to his rotation. He was putting wheat and cover crops on some of his low-productivity ground, and the results were equal to or better than yields on his high-productivity ground.

At that point, Hegland's CSP contract expired and wasn't renewed. But he knew the conservation practices paid, even without USDA's financial assistance. He started planting cereal rye as a cover crop across all his 1,800 acres. He also transitioned to no-till, allowing him to sell his trusted strip-till machine.

"My fields look awful until after the Fourth of July," Hegland says. "But then I see other people's fields start to taper off in August and mine are just starting to take off. People aren't comfortable with that. I've had people tell me if their fields looked like mine, their landlords would take them away because they'd be embarrassed. Well, luckily, mine haven't done that."

Some of his comfort comes from understanding the benefits of his practices. “I have one person who works part-time for me. To be able to farm the acres I farm with just one and a half people says a lot about the labor savings.”

Hegland is always on the lookout for conservation programs that will aid him in his sustainability journey. Last year, he expected to enroll in a program with Farmers for Soil Health. For that program, he simply had to verify he had planted 1,000 acres of cover crops.

“It was an easy verification process, and they would pay $25 an acre for those 1,000 acres,” he says. “For the next year, if I continued, it would be $15 an acre, and then the third year, it’s $10 an acre. It was a great program, and the only thing I had to change was increase my seeding rate of cover crops, which I wanted to do anyway.”

In the meantime, Hegland was accepted to a new, five-year CSP contract that requires him to make a few agronomic changes and provides up to $40,000 in payments per year.

*“I now have less equipment, use much less fuel and need less labor.*

“Farmers for Soil Health is a good program, but this CSP program is a longer-term program with more funding,” he says. “I will surely accept and look for other programs that meet my goals.”

Producers like Hegland who have used conservation practices for many years face an additional challenge. Some programs and companies pay only for new practices or acres. This is common among companies offering producers carbon credit contracts; these typically apply to only “additive” practices. This can feel like a penalty to early adopters, and programs like Farmers for Soil Health have begun taking steps to address this concern in the agricultural industry.

But in the end, Hegland says, “I’m doing this for my own reasons and for economic benefits. These practices work, and they have allowed me time to go see my kids at track meets and baseball games in the spring and football games in the fall because of that reduced labor requirement. That is irreplaceable time.”

“And it is great to see less erosion and all the turkeys, pheasants, deer and birds in my fields because of the cover crops and other changes I’ve made. Farmers oftentimes get painted with a broad brush of mining the land. But I think all of us are trying to do the right thing. Many of us are really exploring different ways to do that.”

# BUILDING CONNECTIONS, MAKING IMPACT

A vibrant, healthy community improves quality of life, attracts workers and keeps the next generation closer to home — all critical to a strong agricultural industry. Our investments in rural businesses and Grand Farm are aimed at supporting the communities where our customers live and work.

These investments have created jobs, increased access to services such as health care, fostered innovative solutions for agriculture, provided young people with educational opportunities and more. The result is more resilient and sustainable communities.

# BRINGING DOWN SILOS

*True change through a collaborative environment.*

Grand Farm is a network of growers, corporations and startups, educators and researchers, investors and government officials — all working together to solve problems in agriculture.

From its inception in 2019 to the 2024 grand opening of the Innovation Campus in Casselton, North Dakota, Grand Farm has worked to advance farming practices through shared ideas and collaboration.

During the 2024 growing season, Grand Farm managed 33 field plots, offering a real-world farm setting for 18 partners working to validate their technology, products or practices. Grand Farm also launched its startup plots, in which six startup companies from the U.S. and Costa Rica can test a no-till planter, biologicals, nano fertilizer, biostimulants, colloidal silver for disease control and more.

Grand Farm's Grower Advisory Board provides valuable insights to help identify the challenges and needs in agriculture. The farm also gathers information from grower associations, commodity councils, research papers and data, compiling findings in its Regional Agricultural Pain Point Report. The newest edition will be available in June, providing startups, researchers and agribusiness with information to develop or test solutions.

AgCountry, which is based in Fargo, North Dakota, led a Farm Credit coalition that donated a combined $1.1 million to help finance the development of the Grand Farm Innovation Campus. FCSAmerica was part of the coalition.

Farm Credit's mission of supporting rural communities and a strong agricultural industry align to the pillars on which Grand Farm is built. This includes innovating in ways that improve growing practices, strengthening rural communities by supporting job creation and fostering a more sustainable agricultural industry.

**33 FIELD PLOTS**
**18 PARTNERS**

# INVESTING IN OUR FUTURE

Much as farmers once struggled to find financing in tough times, rural businesses often operate in “capital deserts,” making it difficult to open new markets, grow or transition to the next generation.

**FARM CREDIT WAS BORN OUT OF THE COUNTRY’S NEED FOR A SUSTAINABLE FOOD SYSTEM, NO MATTER THE ECONOMIC CYCLE. WE EXIST TO BE THE LENDER AGRICULTURE CAN DEPEND ON FOR RELIABLE CREDIT.**

Today, we also are here to support rural communities, where our focus is on economic resiliency, quality of life, health and well-being — factors that foster long-term viability and support our customers where they live and work.

In 2014, we and other associations in the Farm Credit System committed to the first investment fund licensed through the USDA’s then-new Rural Business Investment Program (RBIP). Since then, our involvement has grown to 17 unique investment funds, each privately managed under the RBIP.

These investment funds provide growth capital to rural-based businesses, encouraging further economic development and additional employment opportunities. Companies can be in the start-up, growth or transition phase.

Each aligns to specific investment goals. Last year, for example, the Associations prioritized rural broadband development. Agriculture needs reliable, high-speed connectivity to take advantage of the technology and data driving advances in the industry. We now invest with a fund manager whose area of expertise includes companies that are expanding and improving high-speed internet access in rural areas.

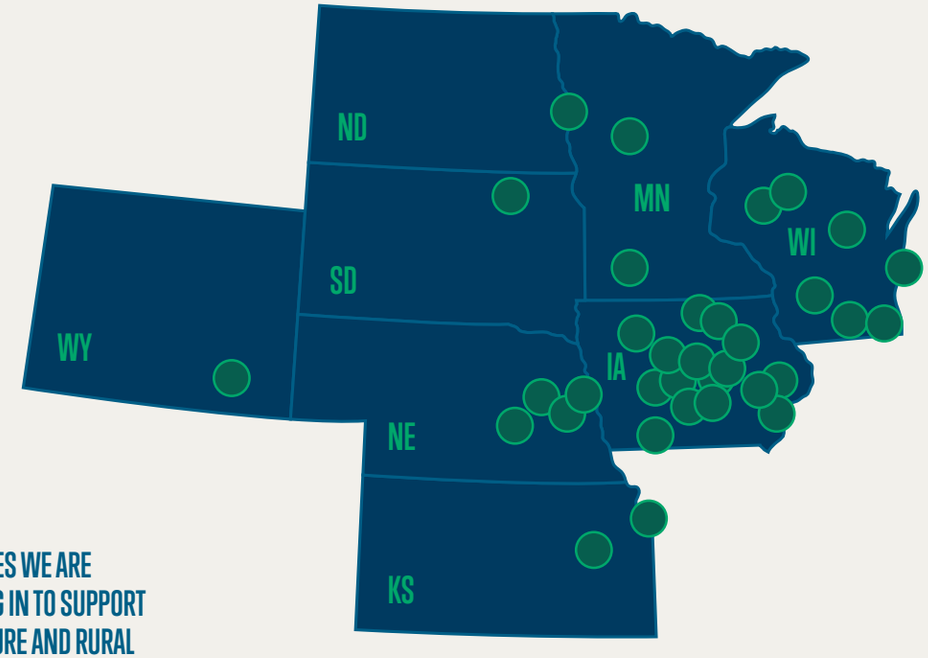
Many underlying portfolio companies that we invest in have ties to sustainability — biodegradable plastics and packaging, environmental and ag-disaster cleanup, aquaculture and more. Others are involved in areas such as rural healthcare, protein production, ag technology and farm equipment.

Earnings from these investments are returned to the Associations, where they benefit our stockholders.

*Our investments in RBIP funds help drive economic development and create or preserve jobs in rural communities. Ultimately, this makes agriculture stronger and provides a return on investment for our stockholders.*

-MARK JENSEN

OUR GROWTH CAPITAL IS INVESTED IN BUSINESSES HEADQUARTERED IN 36 DIFFERENT STATES. IN THE EIGHT STATES SERVED BY AGCOUNTRY, FCSAMERICA AND FRONTIER FARM CREDIT, 35 BUSINESSES ARE REPRESENTED IN OUR PORTFOLIO, AS SHOWN ON THE MAP.




## INVESTMENT BY THE NUMBERS

**94** ACTIVE COMPANIES IN INVESTMENT PORTFOLIO

**3,100** NEW JOBS (8,600 TOTAL)

**$267M** TOTAL COMMITMENTS

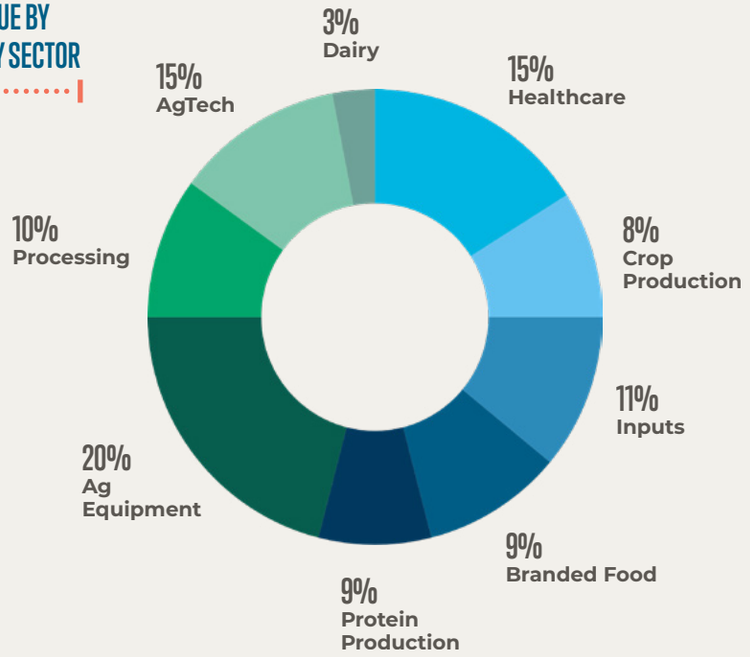
## COMPANIES WE ARE INVESTING IN TO SUPPORT AGRICULTURE AND RURAL COMMUNITIES.

**1** BUSHEL
FARGO, NORTH DAKOTA
Developer of a digital financial platform designed to connect and enhance grain trading and farm management, by providing growers with market information, enabling digital payments and managing grain origination and risk hedging.

**2** SHELL ROCK SOY PROCESSING
SHELL ROCK, IOWA
Brand new development of a large-scale soybean crushing plant, intended to provide a favorable offtake point for soybeans within a 50-mile radius.

**3** SWINETECH
SOLON, IOWA
Developer of a livestock management platform designed to decrease piglet mortality and increase overall herd health. The platform uses artificial intelligence and sensors to improve operational visibility and reduce labor costs.

## BOOK VALUE BY COMPANY SECTOR



# STRONGER TOGETHER

*Farmers and ranchers in the United States lead the world in productivity, largely through their drive for continual improvement.*

Our Sustainability Report highlights some of the important work producers are doing to better their operations and, by extension, our food system.

But building a more resilient agricultural industry is a shared responsibility. Last year, in this same space, we pledged to spend 2024 learning what producers see as the financial opportunities and hurdles to adopting sustainable practices. We also committed to being a voice for producers as we work with organizations and partners who share our vision of sustainability.

We are proud to have delivered on our pledges, including partnering with organizations that are creating marketplaces for sustainably grown commodities, educating and working with producers as they transition to cover crops and advancing water conservation.

We also surveyed producers about sustainable practices and the role we, as a lender, play in helping them make desired improvements. The majority used one or more sustainable production practices to drive improvement, protect their resources and/or improve profitability. Looking to the future, many were interested in achieving efficiencies through technology and facility updates.

Their needs for financing these improvements underscored what we see and hear every day in working with farmers and ranchers. Lending has to be nuanced and specific to the producer's unique needs and goals; sustainability and its financing will always look different from one operation to the next.

Customers who participated in the survey said we meet their needs in the area of sustainability "somewhat well." We hear that, and pledge to build on our sustainability program to do more.

Producers consistently tell us they want more guidance and insights to determine which, if any, sustainable practices and technology work for them. While we provide education through group meetings, articles, one-on-one consultations and more, we plan to expand both the number and reach of our educational offerings. Knowledge is foundational to enablement, both of which are pillars of our sustainability program.

We also are researching lending options specific to sustainability. It is too early to say what this might look like. But know that you, as our customer-owners, are shaping the direction of our sustainability program and offerings.

**THIS PROGRAM IS FOR YOU, AND WE ARE YOUR PARTNER. TOGETHER, WE WILL BUILD A STRONGER, MORE RESILIENT INDUSTRY.**

2024 SUSTAINABILITY REPORT

# STRENGTHENING OUR COLLECTIVE IMPACT.

Farm Credit Services of America | AgCountry Farm Credit Services | Frontier Farm Credit