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The Carbon Issue: Getting to Know the Carbon Market



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Visit us online at www.ilsoy.org/magazine/illinois-field-bean.



COVER: Meet the ISA Agronomy Team! From Left to Right: Jennifer Jones, Agronomy Manager, Abigail Peterson, Director of Agronomy, Megan Miller, Agronomy Manager.

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Let's Talk Carbon



STEVE PITSTICK | Chairman and District 2 Director | ILLINOIS SOYBEAN BOARD

As I look back over my four decades of farming, I've realized that I strive for constant improvement and found that building soil structure has made a positive impact in many ways.

That doesn't mean I haven't had my fair share of setbacks and failures, but I am always looking over the horizon for the next improvement to make, whether it be a new technology to adopt or a new practice to implement.

As an organization, it is essential that the Illinois Soybean Association (ISA) looks toward continuous improvement of our own, particularly in the ever-evolving carbon market space. We have only grazed the surface thus far, but are committed to diving deeper and providing you with comprehensive, digestible information to help Illinois farmers make the best decisions.

We've taken efforts to fulfill this commitment through various projects like the scale-up of the Soil and Water Outcomes Fund (SWOF) pilot program, a non-industry avenue to the carbon and water quality markets. Our support here provides terms not found in industry offerings such as payments in the year of enrollment, one-year contracting, and increased data privacy.

The Precision Conservation Management (PCM) program is another effort we pride ourselves on through a partnership, now in its second year, with IL Corn. PCM provides expert advice to farmers with regards to adoption of conservation practices, and helps with the acquisition of support funding to implement planned changes.

We've also established a new program through our ILSoyAdvisor platform called CarbonSense, which provides unbiased information to Illinois soybean farmers and Certified Crop Advisers surrounding the "carbon conversation," including basic information on carbon sequestration, carbon credits and available carbon market/bank opportunities.

Also, in the works this fiscal year is a Carbon and Data Guidebook which will serve as a tool to navigate emerging outcome programs. We know successful participation in conservation cost-share programs or environmental outcome market programs, such as carbon markets, requires Illinois soybean farmers to both understand program availability and requirements from the jungle of offerings, and be prepared to organize and share their farm data. Be on the lookout for the Guidebook on *ILSoyAdvisor.com* later this summer.

To share a little about my own experience, I had the opportunity to participate in SWOF last year. I looked at various carbon market programs and that was the first one I dove into with 215 acres. It was a learning experience for me to see what it entailed because the carbon space can be a bit daunting and confusing to navigate.

My experience was overall a positive one. They made it a painless procedure. I completed the conservation practices that I would typically do, and I got paid for water outcomes as well as no-till practices. After my first year, I didn't hesitate to sign up again.

What drew me into this program was the fact that these are practices that I believe in and had already implemented on other parts of my operation, so being able to capture the actual value made it worthwhile. On the other hand, I signed up for another carbon program but withdrew because it just didn't seem worth it between the low payments and lack of flexibility.

I evaluate my operations yearly and see if there are new technologies that can improve the way I'm doing things, and if so, I find the best way to implement them.

As I reflect over my decades of farming experience, the changes that agriculture has made in the way we do things has constantly improved and tackling the carbon space may just be the next step in that evolution.

Margin to Move

If you come to the ISA office on any given weekday, it's not often you'll find me at my desk. That's because I've always firmly believed in a management style they like to call – MBWA – management by walking around.

Experience has taught me the best relationships are made with face-to-face contact. I spend many of my workdays walking the halls of the office and talking to our employees. The same goes with our farmers and board members – I prefer to build those relationships in real settings whenever I can, and it's always a pleasure just to talk and hear about your business when I'm on your farms and in the midst of the boots on the ground work of this industry.

I'm going to guess that many of you reading this column are MBWA practitioners, too.

I also know that associations do their best work when they have the ability to move. Whether it's the ability to act on new ideas, or in the building of new relationships, ISA is only as successful as the margin we give ourselves to grow and evolve. Quite simply, a good association needs space to run, and people to do it.

It's no secret that ISA is growing. We've grown our staff team over the past 24 months to allow for the opportunity to put more people on the ground, and in positions to better serve our farmers. This has looked a lot like depending less on contractors and investing more in dedicated ISA team members. These are people who are transforming the quality and breadth of our work and providing the best service to the 43,000 soybean farmers we are proud to serve. It also means being willing to move into new spaces where we see a need – let's say growing our agronomy team as an example – so we can provide better in-field service and education to our checkoff payers. You'll get to learn more about our dynamic, new agronomy team in the pages of this issue.

This summer, you'll hear us talking about a literal move. To accommodate our growing ISA team and the services that we now provide, we've outgrown our current office space. This fall we'll be moving into our new building location at 1108 Trinity Lane in Bloomington. This building is an investment in the future of ISA, and an investment in Illinois soybean farmers as we expand the possibilities that exist with your checkoff contributions.

Our industry and our association team is on the move, and all of that spells good news for farmers. I hope you continue to follow along on our progress.

I'd love to hear about your ideas for growth, too. Please email me at any time at ilsoy@ilsoy.org.



JOHN LUMPE | CEO |
ILLINOIS SOYBEAN ASSOCIATION





Under the leadership of Abigail Peterson, ISA Director of Agronomy, the ISA Agronomy Team is changing the conversation when it comes to sustainability, carbon program best practices, and demanding more resources for farmers working toward climate resiliency.

Meet the ISA Agronomy Team

By Betsy Osman

The greatest constellation of talent, passion, and industry-bending achievement isn't streaming on Hulu. It's studying soil in Illinois fields. It's meeting with farmers over conservation best practices. And it's challenging our thinking about all things good, green, and growth-ensured.

It's the Agronomy Team at Illinois Soybean Association.

This powerhouse, all-female cast is stacked with experiences contoured over acres, laboratories, classrooms and boardrooms. Their boots are muddy, their smarts are laser-sharp, and their hands that love mining earthy terrain are happiest to grab someone else's to bring them along.

At the helm of this threesome, you'll find ISA Director of Agronomy, Abigail Peterson.

Meet Abigail

Abigail Peterson earned a Bachelor of Science in Agronomy from Iowa State University where she went to work for the ISU Soils and USDA NLAEL Laboratories

learning soil test analysis on aggregate stability, pH testing, greenhouse gas testing, residue testing, soil extractions, soil carbon and nitrogen testing, soil compaction and water infiltration. Her education at Iowa State led to a love of soil science and appreciation of soil functions. After she graduated, Peterson was accepted into the DuPont Pioneer Emerging Leader Program, stationed at a soybean production plant in Hedrick, Iowa. There Peterson trained with production agronomists Michael Fosdick and Lucas DeGroot on grower relations and agronomic decisions, and assisted with field inspections.

"Studying beneath two of the industry's most talented agronomists instilled in me a work ethic of complete dedication to farmer service and a passion to never stop growing my agronomic knowledge," says Peterson.

After working at the production level in Iowa, Peterson moved to Illinois to work for the National Corn Growers Association's Soil Health Partnership Program. She worked as a Field Manager cov-

ering Illinois and Missouri, gaining experience creating soil health transition plans, enrolling on-farm trials, collecting agronomic and economic field information, and spatial yield data. In this role, Peterson learned from farmers and experts across the state about the decision-making processes involved with cover crop applications to conventional systems and the role of soil health testing.

In May 2021, Peterson joined the Illinois Soybean Association. As Director of the Agronomy Team she's responsible for directing the advancement of soybean management systems to protect and improve soil productivity and water quality. Her main focus is on projects geared towards agronomic training with soil health systems, farmer relations and farmer programs.

Says Megan Miller, ISA Agronomy Manager, "Working with Abigail is truly a joy. In her previous roles, she was responsible for advising growers on high yield strategies and then was able to apply that same methodology to her recommendations for growers transitioning to con-

servation farming. Her previous work experience combined with the knowledge she has gained from working daily on her family's farm gives her the 'boots on the ground' mindset that keeps our team grounded in the needs of the farmers and greatly benefits the programming at ISA. She is an amazing leader and is willing to ask the tough questions that are needed as we work to build the agronomy program at ISA. She also is very cognizant of the needs of her employees and works to make her team successful daily."

Meet Megan

Megan Miller grew up in Bartonville, Illinois. She earned a Bachelor of Science in Environmental Biology with a minor in Chemistry from Eastern Illinois University in 2014. Her undergraduate research focused on fungal ecology, which led her to NC State University where she earned a Master of Science in Plant Pathology in 2016. Her master's work focused on applied integrated pest management strategies for a fungal pathogen of boxwood. During this program, Miller en-



joyed the opportunities she had to work with farmers and joined NC State Extension in a Small Grains Agronomy lab with responsibilities in wheat, barley, malting barley, canola, oats, and industrial hemp. She designed and managed statewide small grains agronomy trials with NC Cooperative Extension Field Crops Agents, lead experimental design and data analysis training for field crops agents, and performed data analysis for the NC State Official Variety Trial for a wide variety of row crops.

Miller moved back to Illinois in 2018 to serve as the Ag Innovations Manager for the Illinois Soybean Association, working on the ILSoyAdvisor platform, ISA research projects, and an agtech initiative. In 2020, she took a role at Moore & Warner Ag Group as a Business Development Manager where she assisted the farm management team with conservation farming decisions and opportunities. She also developed an online platform and curriculum for educating members of the agtech and agfinance industries, and non-operating landowners about day-to-day farm operations which drive production agriculture in the Midwest.

Miller joined the Illinois Soybean Association in 2022 as an Agronomy Manager. As such, she serves as the team lead for the Soil and Water Outcomes Fund and carbon market opportunities, multi-state agronomic partnership initiatives, the North Central Soybean Research Program, and the Soy Envoy Program.

"The experience and range of Megan's work is one of the advantages ISA needs to develop new and innovative projects within conservation," says Peterson. "Working on projects relating to agriculture programs and partnerships that incorporate farm management, carbon markets, cost share, and farm scale environmental modeling, Megan has the science knowledge and management history to keep

Illinois farmers' needs supported. She is an expert in being able to communicate the carbon market space and has worked on creating a framework for comparing, contrasting, and evaluating carbon market options."

Meet Jennifer

Jennifer Jones earned a Bachelor of Science in Natural Resources and Environmental Sciences from the University of Illinois at Urbana-Champaign with a minor in Crop and Soil Management, and a Master of Science degree in Agronomy from Purdue University. Her master's research consisted of studying cover crops' influence on soil nitrogen levels at varying depths in the soil profile and their influence on the soil microbial community at multiple farm sites throughout Indiana. After completion of her master's degree, she joined the University of Illinois Extension as a Watershed Outreach Associate, where she focused her efforts in two phosphorus priority watersheds as listed in the Illinois Nutrient Loss Reduction Strategy. While there, Jones developed working relationships with local partners within the watershed, such as farmers, Soil and Water Conservation Districts (SWCDs), Natural Resources Conservation Service (NRCS), and Illinois Farm Bureau to motivate and educate farmers and landowners to voluntarily adopt conservation practices to improve water quality and soil health. Additionally, she co-lead watershed planning efforts with stakeholders to address water quality concerns and develop solutions.

Jones is a Certified Crop Adviser with the 4R Nutrient Management Specialty certification. She joined Illinois Soybean Association in January 2022 as an Agronomy Manager. As such, her areas of focus include managing ISA Endowments with universities, she serves as lead for the Illinois Nutrient Loss Reduction Strategy and as ISAP Advanced Soil Health Training coordinator

(training that will start in August 2022), and she coordinates the CarbonSense Podcast.

"I've been following Jennifer's work in Extension since I moved back to Illinois in 2018," says Miller. "I was always impressed by the work she was able to do and how effective she was given her resource constraints. When Abigail told me we would be working together, I was beyond excited. Her strong research background and deep understanding of water quality and the practices that impact nutrient retention or runoff are a huge asset to the association, and I learn from her daily. Jennifer is well connected to the free technical support resources that exist for farmers in Illinois and having the opportunity to boost the work that is already happening while continuing to expand those resources is essential to the future of ag in Illinois."

If you ask these agronomy all-stars what they're most excited about looking ahead, you'll get an array of animated answers. But a common denom-

inator amongst them has to do with bringing fresh resources to Illinois farmers, the ethical stewardship of our land, and the cultivation of an educated agronomic community that supports one another.

"I'm most excited to see how the conservation space in Illinois continues to evolve in the coming years," says Jones. "We know farmers care about the land and water, but they need support in the form of research, education, cost-share, and more to help them voluntarily meet goals that are set in the state related to climate resiliency, water quality, and soil protection, while still producing the best bean crop possible. The Agronomy Team at ISA is prioritizing partnerships and collaborations with organizations and people around the state and beyond to help provide the best resources to Illinois farmers. I'm eager to see how the Illinois agriculture community continues to partner and grow together to create climate resilient farm systems."

The poster features a green background with a white leaf icon at the top. The text reads: '- INAUGURAL - ISA Achievement Awards Program - The Illinois Soybean Association -'. Below this, a white box lists five award categories: Illinois Soybean Association Chairman's Award, Illinois Soybean Association Legislator of the Year Award, Illinois Soybean Association Excellence in Media Award, Friend of Illinois Soybean Farmers Award, and Illinois Soybean Association Farm Family of the Year Award. At the bottom, there is a QR code with the text 'Scan to Nominate Before July 8!' and the Illinois Soybean Association logo. A vertical text on the left edge reads 'Funded by the Illinois Soybean Association Checkoff Program'.

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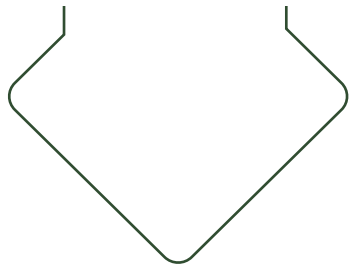
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Whether it's improving soybean meal to outperform the competition or promoting the sustainability of U.S. soy, the soy checkoff has been working behind the scenes to help farmers satisfy their customers' needs. We're looking inside the bean, beyond the bushel and around the world to keep preference for U.S. soy strong. And for U.S. soybean farmers like you, the impact is invaluable.

See more ways the soy checkoff is maximizing profit opportunities for farmers at unitedsoybean.org





What I've Learned About the Carbon Market

Since its inception, the Illinois Soybean Association's (ISA) Agronomy Team has been hard at work navigating the numerous carbon market opportunities available to Illinois growers. While carbon programs are intriguing, it's important to understand that many of the current markets are still in early stages and growers shouldn't jump headfirst into a program without first reading the fine print.

Partners and organizations across the state are developing programs that help farmers maximize their opportunity to create additional revenue. Many of these programs remain in pilot stages, so are still being adjusted as they go through each field season.

A lot of farmers have been using sustainable practices on their acres and have been stewards of the land for many years. We strive to make sure those conservation veterans are part of the conversation, and those growers are being rewarded for their efforts. We look to those farmers as great mentors to help us understand how these systems work, and to show other growers the benefits of conservation outside of carbon credit production.

Regardless of the payment offered, or the amount of data a company needs for a particular program, it's the soil that's inevitably in control. A farm's location, soil type, the cropping system used, and the farmer's experience level are all factors to be considered by a farmer to use conservation practices to their advantage and create a system that's resilient for their farm, as well as environmentally beneficial for their community.

Gathering data required for enrollment can also be challenging, which is why we're creating a data guidebook to help. Data is growing in importance, and it is necessary for farmers to prepare for any program, whether or not a farmer is interested in a carbon program.

In a constantly evolving carbon market landscape with many unknowns, we're here to help you navigate. Here are a few tips our team recommends you keep in mind when considering participation in a carbon or ecosystem market program.

- It's probably too early to enroll the whole farm. Start by implementing a new practice on just a few fields at a time.
- Be prepared with good conservation agronomy. Make sure you have access to a trusted conservation agronomist, whether it be your Specialist through the Precision Conservation Management program, the STAR program, your local Natural Resources Conservation Service, *ILSoyAdvisor* Soy Envoys, or your local Extension office.
- Get your data ready. Records and data are the key to receiving the highest dollar for your work through these programs.



ABIGAIL PETERSON | DIRECTOR OF AGRONOMY |
ILLINOIS SOYBEAN ASSOCIATION

- Appoint a carbon expert. Have someone your operation relies on to keep you up-to-date on carbon markets.
- Understand your conservation goals. Carbon market financial mechanisms might not always be the best fit, so be sure to analyze your individual goals before committing. Keep your conservation goals at the forefront whether it be increasing crop diversity, reducing erosion, decreasing runoff, or others.

Farmers can look to ISA, our friends at IL Corn, or the Illinois Sustainable Ag Partnership for resources. You have a team available to you including myself and ISA Agronomy Managers, Megan Miller and Jennifer Jones. Our team works every day researching programs, fielding calls, and creating content through *ILSoyAdvisor.com* to help you be your most profitable and sustainable.

Going back to the basics of soil science and nutrient cycling, we know that soil is a living ecosystem so it's hard to see results quickly. But thanks to our team and farmer leaders, we know conservation practices are effective. With their guidance and participation at the forefront of these conversations, ISA is advocating for farmers in industry discussions to ensure they are treated fairly.



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JOHN DEERE



RACHEL PEABODY | EDITOR |
ILLINOIS SOYBEAN ASSOCIATION

Carbon by Numbers

We surveyed Illinois soybean farmers in early 2022 as part of our annual producer sentiment survey. We asked these questions about carbon:

Are you currently enrolled in a carbon program?

Answer: 6 percent of Illinois farmers are actively enrolled in any number of programs available

How likely are you to participate in carbon markets where you are paid to implement certain practices on your farm in exchange for reducing greenhouse gases?

Answer: 4 percent extremely likely, 11 percent very likely, 40 percent somewhat likely, 30 percent not very, 16 percent not at all

Which of the following best describes your approach to reducing your farming operation's carbon footprint?

Answer: 28 percent actively implementing practices, 24 percent considering implementing practices, 34 percent needs to better understand, 12 percent don't believe there's a need, and 2 percent answered they didn't know.

The survey also found that those farmers with 2,000 acres or more were more likely to be enrolled in a carbon program.

Rest assured, wherever you might fall on the spectrum of understanding carbon practices and the impact they will make on your business, you're not alone. As we've spent time this past year talking to farmers about this topic, it's become clear that there's a role for the checkoff to play in helping farmers understand this complicated, but important, landscape. That's why you'll see your checkoff investments funding a number of farmer educational resources this year that are available now. That's also why we devoted this entire issue to talking about carbon, our agronomy team and the sustainable ag programs they help soybean farmers implement every day.

We've been busy this spring investigating and examining carbon programs on [ILSoyAdvisor.com/carbon](https://www.ilsoyadvisor.com/carbon) where you'll find actionable information on carbon market programs, blogs, podcasts, webinars and more.

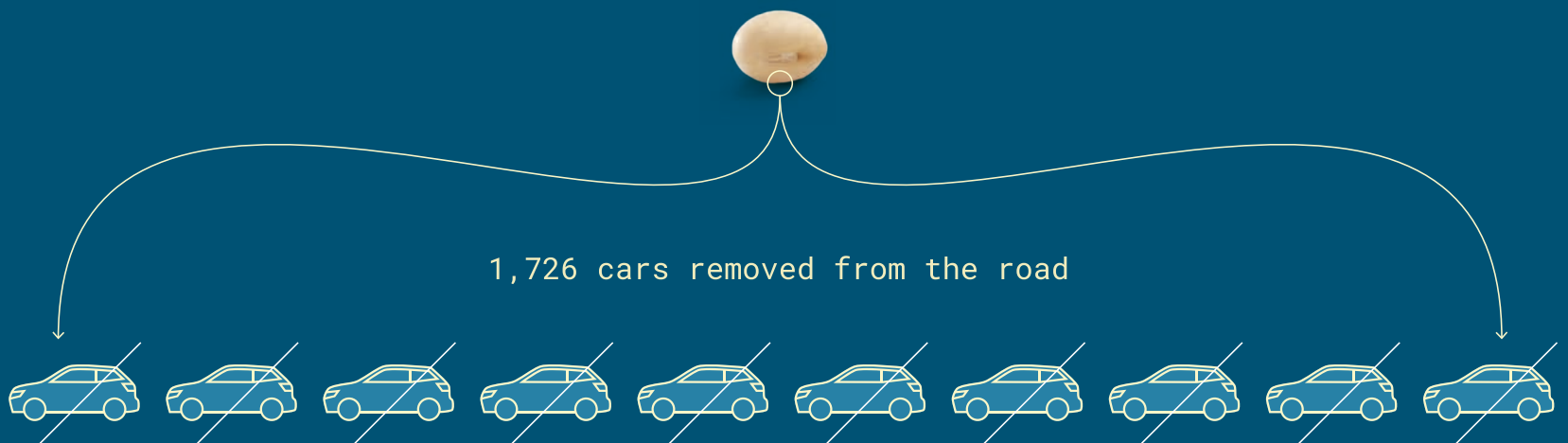
Even as a communicator, sometimes we need to look at the numbers. And the numbers on carbon tell us that we've got a ways to go in helping Illinois farmers understand what's often called "the wild wild west" carbon market. This isn't the last you've heard from us on this topic, and we hope to hear more on what questions you might have too. We're here to help. Email us today at ilsoy@ilsoy.org.





Sustainable agriculture is full of questions. The soybean checkoff is helping provide answers.

.5% per bushel sold



Through the Soil and Water Outcomes Fund, your .5% per bushel sold helped capture 8,000 metric tons of CO₂ — the same as removing 1,726 cars from the road.

Agricultural science is constantly changing the soybean landscape, including sustainable practices. Thanks to your contribution of one-half a percent per bushel sold, the Illinois Soybean Association is collecting data and information that will help soybean farmers understand what sustainable practices may mean for the health of their soils, water quality, and their bottom line.

For more information, visit ilsoy.org to learn more about soil health, sequestering carbon and reducing nutrient runoff — as well as the financial benefits for doing so.

THE CHECKOFF THAT PAYS OFF.

HOW GLOBAL TRADE ISSUES, SUPPLY AND DEMAND ARE DRIVING UP FERTILIZER COSTS

At The Mosaic Company, our mission is to help the world grow the food it needs. We do everything we can to offer stable prices and a reliable supply of critical fertilizer to U.S. farmers. In fact, we supply about half of the phosphate fertilizer applied in the United States. We recognize that fertilizer costs have increased dramatically over the past several months, and feel a responsibility to share our global perspective on this complex issue.

1) Fertilizer demand follows commodity prices

Demand for fertilizer has increased as farmers try to capture additional revenue from higher crop prices, leading to an increase in both planted acres and fertilizer use. The trade outlook for U.S. agricultural commodity exports remains strong for 2022, as it was in 2021, and with higher grain prices driving higher fertilizer demand, higher fertilizer costs historically follow.

Additionally, fertilizers are globally traded commodities, just like soybeans, and as a result, fertilizer prices are influenced by many factors such as increases in commodity prices driving global demand of fertilizers.

2) The cost of fertilizer production has increased

Higher input costs such as ammonia and sulfur, two critical inputs for production of phosphates, were subject to sharp increases in 2021, and have seen further acceleration in 2022. Prices have increased 428% and 401%, respectively.

3) Trade and Supply disruptions continue to reshape the market

Other countries announced restrictions of fertilizer exports to ensure their own domestic supply. For example, China, which accounts for over 25% of global phosphate exports, imposed strict export controls in October 2021 and are expected to remain for the

foreseeable future. In addition, the geopolitical situation in Eastern Europe is further complicating global fertilizer supplies. While the U.S. is in a better position than many other countries, global product supply and supply chain has been disrupted due to sanctions and port closures. Until this situation deescalates, and transportation normalizes, fertilizer supply will continue to be constrained keeping prices elevated in 2022.

In March 2021, the U.S. International Trade Commission issued a countervailing duty on Moroccan and Russian phosphate fertilizer imports due to unfair foreign subsidies. Irrespective of this, phosphate imports came into the U.S. at record levels, and from a more diversified supply base. In fact, U.S. phosphate imports increased by 1.7 million metric tons or 73% year-over-year in 2021 and from double the amount of suppliers relative to historical norms. This has resulted in a more balanced and fair-trade market, which creates a more competitive environment with trusted and reliable suppliers for American farmers and American agriculture in the long term. Phosphate prices in the U.S. are currently \$150 to \$200 per ton less than in other major agricultural markets such as Brazil and Europe. Assertions that the countervailing duties are driving U.S. prices higher are simply untrue.



We understand the pressures ag retailers and farmers are facing during this tumultuous time and the frustration that comes with it. We value our long-standing relationships and are committed to our retail partners and their farmer customers, and will continue to offer them transparency and support as they navigate tough decisions ahead.

Homegrown Solutions

Read about Marquis Industrial Complex, Illinois' newest carbon sequestration program.



The carbon capture test well at the Marquis Industrial Complex in Hennepin, Illinois. Photo courtesy of Ben Marquis.

By Stephen Sostaric

Every day we hear more about carbon and the major role it plays in climate change. More and more, we also hear about the role agriculture can play in combating the amount of carbon that goes into the atmosphere. The Marquis Industrial Complex in Hennepin is looking towards the future of carbon sequestration with a process where carbon is permanently stored deep within the earth and not allowed to return to the atmosphere.

This is the future starting to take shape about an hour north of Peoria. The Marquis Industrial Complex, already home to a corn ethanol facility, is an industrial park that will be a future home for low- and zero-carbon businesses. These include a soy crush facility, blue hydrogen and blue nitrogen facilities, and a corn to sustainable aviation fuel facility capable of producing 120 million gallons per year.

"The complex is part of Marquis' goals to become more sustainable and create a more carbon neutral world," said Dustin Marquis, Director of Government Relations & Employee Outreach.

The bioenergy industry in the United States is capable of cap-

turing about 47 million metric tons of CO₂ that is naturally captured by the corn processed at these biorefineries every year. However, these facilities often release this carbon back into the atmosphere with few facilities possessing and utilizing the capability to store it on site deep beneath the earth. Marquis' project is looking to further add to this storage capacity with the industrial complex through a process they call BECCS (Bio Energy Carbon Capture and Storage). The first step is to capture the CO₂ released during the ethanol production process. It is then concentrated into a liquid form that can be injected and stored thousands of feet into the earth's surface.

"The CO₂ is put into a supercritical state," said Marquis. "Essentially, we can take an Olympic-sized swimming pool worth of CO₂ gas and condense it down to a gallon jug of liquid."

The Hennepin region serves as an exclusive location for Marquis' carbon sequestration due to its unique geological location. It sits on the Mt. Simon formation, providing the strong, deep cap rock required by the U.S. Environmental Protection Agency (EPA). In addition to this stable geological structure, Marquis had to invest in multiple tests to demonstrate to

the EPA that enough surface pressure exists to keep the stored CO₂ in its supercritical state. Water sources must also be considered. Wells tap into water near the surface, while the carbon storage will be 3,000 to 5,000 feet below the surface. Any water at that depth is far too salty to be considered for human consumption. Once these and other requirements are fulfilled, the EPA can then issue the Class VI injection well permit for storage to be done on the site.

Marquis' scientists have been working closely with the EPA to ensure compliance. The company has invested time and financial resources on the geological research necessary to make sure there is no release once the CO₂ is stored. Once the storage begins, Marquis will continually monitor the site to make sure the storage process continues to be done safely and as modeled.

This type of carbon capture can also be cost effective. Some facilities exist which capture excess carbon directly from the air. This process costs about \$1,200 per metric ton of carbon captured. A bioenergy facility can capture and store the carbon created during the manufacturing process for less than \$85 per metric ton. With the average bioenergy facility capturing about 235,000 metric

tons per year, the savings begin to add up.

While the process itself makes ethanol production at the facility a lower carbon process, Marquis sees its complex as part of a larger low carbon cycle. By creating a lower carbon input into crop production, crops with a smaller carbon footprint are produced. This adds to the benefits that agriculture already provides in the area of CO₂ capture. According to Dustin Marquis, "This carbon capture process is unique because the benefits can be seen from farmers to product." Combined with other advances, "farmers are now able to produce more crops on less land while engaged in more sustainable practices."

The Marquis Industrial Complex is a leading example of how Illinois agriculture is helping to make the world more sustainable by investing to create cleaner air and lower emissions to make the environment better for all. By removing carbon from the atmosphere, first by growing the plants and then capturing and storing it during the bioenergy production process, one can see a day where Illinois produces carbon neutral or maybe even carbon negative crops. That's something that should make us all breathe a bit easier.

Sustainability

FY21 ANNUAL REPORT

Your partner in
conservation agriculture.



The Illinois Soybean Association checkoff program makes significant investments in programs and partnerships that are taking strides to promote sustainable agronomic practices, in addition to achieving environmental sustainability objectives through its biodiesel programs.

That's why we're introducing our Sustainability Annual Report, to communicate the efforts ISA takes to promote best management practices to Illinois soybean farmers and stakeholders. We've got a special focus on sustainability education and resources for maximizing soybean production while minimizing soil and nutrient loss.

Whether it's meeting you in the field, hosting train-the-trainer events, or creating online resources, the ISA Agronomy team is here to assist you. Working across Illinois with farmers of all operation sizes with different goals, cropping systems, conservation experience, and management, our mission is to provide you with the best information to sustainably optimize your soybean production. This team has experience in agronomy, soil health planning, conservation systems, water quality, double-crop systems, and plant pathology, and we are eager to help you reach your yield and conservation goals.

- **Abigail Peterson**, ISA Director of Agronomy



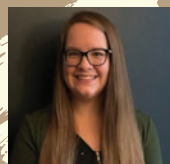
ILSOYADVISOR

ILSoyAdvisor is a free, one-stop resource for the latest soybean insights, tips and advice, all designed to help soybean farmers succeed. One area of content that ILSoyAdvisor prioritizes is providing resources regarding sustainability practices. In FY21, blogs featured on the online resource covered carbon programs, tillage, cover crops, conservation assistance programs, and more to hundreds of soybean farmers and agronomists visiting the website each week.

ILSoyAdvisor's Soy Envoy program, established in partnership with Illinois Certified Crop Advisers, recruits six CCAs from across the state to provide actionable insights and advice to soybean growers throughout the growing season. In FY21, the Soy Envoys hit the ground running providing local recommendations, expert advice, articles, webinars and more. The Envoys also conducted a soil health experiment where they buried one piece of cotton fabric in a field that they felt had very good soil health, and another piece of cotton fabric in a field that they felt had poor soil health. The more fabric that was broken down and consumed by soil microbes during the growing season, the healthier the soil.



Funded by the
Illinois Soybean
Checkoff



“Currently, there is no shortage of funding sources available to growers to assist with the implementation of conservation practices on their farm. However, wading through all those opportunities and understanding which funding sources are best to help you reach your conservation goals can be overwhelming. The most important thing a grower can do when starting their transition into conservation agriculture is to understand the goals they have for their farm and which practices will help them accomplish their goals. Each farm is different, and so is each funding source, so make sure you find one that will work best for you in the long run.”

- **Megan Miller**, ISA Agronomy Manager

PRECISION CONSERVATION MANAGEMENT

Precision Conservation Management (PCM) is a farmer service program developed to help farmers adopt conservation practices in a financially-responsible way, as a response to the Illinois Nutrient Loss Reduction Strategy and pending future national level Climate Change Policy. Since partnering with IL Corn in 2020, ISA helped to expand PCM into new regions, growing from 15 counties to 31, in addition to offering outreach and field day support.

In FY21, the PCM program had 425 farmers and more than 400,000 acres enrolled. There are over 1 million acres in the entire dataset (from 2015-2021). The same year, three additional PCM Specialists were hired: Lou Liva, covering Rock Island, Mercer, Henry, and Knox counties; Alexa Rutherford, covering Ogle, Lee, DeKalb, Boone, and Winnebago counties; and Andrea Kohring, covering Monroe, St. Clair, Madison, Clinton, and Washington counties. More than 30,000 acres were enrolled in the PCM program in these regions in 2021. ISA and TNC partnered on a cost-share program that helped PCM farmers plant cover crops on 3,550 in fall of 2021.

Through collaboration with local Soil and Water Conservation Districts, participating farmers can utilize one-on-one technical assistance to guide them through conservation decisions and to aid in the evaluation of their farm, relative to others in the program. In total, PCM has more than 30 partners supporting its efforts to help farmers understand and manage the risks associated with adopting new conservation practices.

COMPREHENSIVE EVALUATION OF PHOSPHORUS BEST MANAGEMENT PRACTICES

Dr. Andrew Margenot, University of Illinois at Urbana-Champaign, is working diligently to update the 4Rs (right rate, right time, right source, right place) for phosphorus application in northern, central, and southern Illinois. Because the most commonly applied phosphorus fertilizers (MAP/DAP) also contain nitrogen, Dr. Margenot has field trials across the state to evaluate nitrogen-free fertilizer options. He is measuring yield, phosphorus use efficiency, economics, and water quality benefits of these nitrogen-free fertilizers.

PARTNERING FOR A BETTER TOMORROW

ISA is a proud member of the Illinois Sustainable Ag Partnership (ISAP) along with several other organizations who work toward meeting the Illinois Nutrient Loss Reduction Strategy goals. This collaborative group seeks to increase the technical capacity of agriculture professionals and to utilize data and consistent messaging to encourage the adoption of in-field and edge-of-field practices to reduce nutrient loss, while minimizing risk and increasing profits of the farmer. Learn more about ISAP at ilsustainableag.org.

ISA partners annually with the Illinois Wheat Association to co-host the Double Crop Forum in Mt. Vernon, Illinois. The increased profitability and the presence of living roots in the soil all year makes double-cropping a no-brainer for Illinois soybean farmers, especially in Illinois.


BIODIESEL

Made from soybean oil, biodiesel reduces harmful greenhouse gases while also delivering high-quality performance. Compared with regular diesel fuel, biodiesel has significantly fewer emissions of particulate matter and other harmful pollutants. In fact, biodiesel is labeled a Clean Air Choice by the American Lung Association.

In FY21, the Illinois Soybean Association deployed an integrated marketing plan to drive awareness with Illinois farmers for the equipment performance, financial, and environmental benefits of biodiesel use on their farms. Communications included digital and physical collateral distribution, paid print and digital support, billboards and presence at the Farm Progress Show in Decatur, IL. Custom vehicle wraps on a grain semi and fuel truck also helped spread the word on the benefits at a grassroots level.

Fleets across Illinois depend on biodiesel for more sustainable operation. Members of the B20 Club, a partnership between the Illinois Soybean Association checkoff program and the American Lung Association, are leaders in using B20 biodiesel to operate more efficiently, improve air quality, and reduce their carbon footprints – all important benefits to their local communities.

In FY21, B20 Club members eliminated 12,059 tons of carbon and equivalents (CO₂e) and accounted for \$900,575 in estimated health benefits to Illinois residents. Since its founding in 2015, B20 Club has eliminated 111,663 tons of carbon and equivalents (CO₂e) and accounted for \$20.9 million in estimated health benefits to Illinois residents.

 **Funded by the Illinois Soybean Checkoff**

ISA provided a winter fueling report to B20 Club members highlighting the pricing and availability of biodiesel at Illinois fuel terminals and included results of cold flow studies showing that B20 with additives will perform as well as diesel in winter. ISA also provided technical assistance to B20 Club fleets regarding fuel quality, fuel infrastructure and vehicle maintenance.

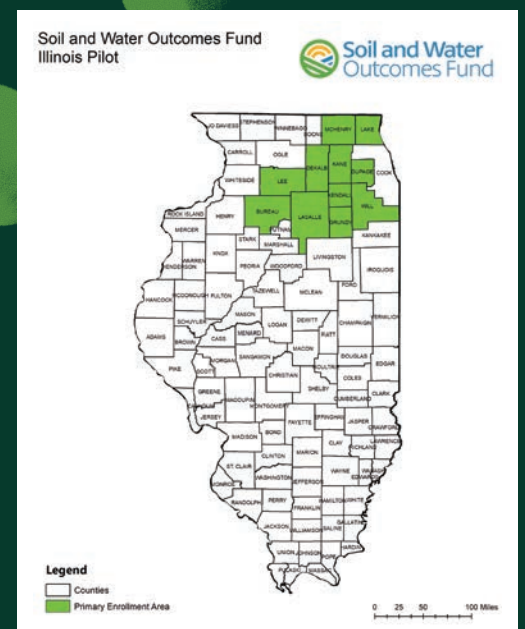
ISA also executed an urban biodiesel campaign during FY21, which included a variety of educational communication touchpoints leveraging the creative concept “Small Shift, Big Impact.” Campaign elements included educational mailers to key Illinois stakeholders, paid media (digital and traditional), biodiesel landing page (smallshiftbigimpact.com), produced biodiesel 101 video, in person educational events and event collateral (gift bags with campaign items, event signage).



Soil and Water Outcomes Fund

In fiscal year 21, the Illinois Soybean Association partnered with the Soil and Water Outcomes Fund to catalyze farmer adoption of conservation practices that generate verifiable carbon reductions and water quality improvements. The program expanded into Illinois starting in Bureau, DeKalb, DuPage, Grundy, Kane, Kendall, Lake, LaSalle, Lee, McHenry, and Will counties, targeting 20,000 acres of new conservation practice adoption. This partnership is a component of ISA's efforts to scale sustainable agriculture practices in a farmer-centric and outcomes-driven manner, and helps ISA demonstrate the value of sustainability to Illinois soybean farmers.

The Soil and Water Outcomes Fund provides financial incentives directly to farmers who transition to on-farm conservation practices such as no till and cover crops that yield outcomes like carbon sequestration and water quality improvement. The environmental outcomes are verified using a combination of environmental modeling, in-field monitoring, and remote sensing. The water quality and carbon sequestration outcomes produced by farmers in Illinois are being purchased by a mix of public and private partners.





Funded by the
Illinois Soybean
Checkoff



“We seek to compliment the state’s Nutrient Loss Reduction Strategy water quality goals with our work here at ISA. We acknowledge agriculture’s contributions to the issue and want to provide education, resources, and technical assistance to growers interested in adopting conservation practices to protect water quality and build soil health.”

- Jennifer Jones
ISA Agronomy Manager

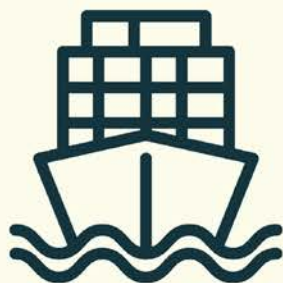
“GATHER AROUND THE TABLE” ISA INFLUENCER EVENT

The Illinois Soybean Association hosted an on-farm, soy-centric dinner event called “Gather Around the Table” in Waterman, Illinois. The event brought stakeholders in the food industry together with ISA and several Illinois soybean farmers to give guests a firsthand look at sustainable soybean production. The event also fostered further understanding of the consumer sustainability demands being placed on these organizations.

Thirty guests from various food supply chain organizations with a stake in sustainable production attended the 2021 event including representatives from Conagra, Ferrara Candy Company and McDonald’s. Guest speakers included Jenny Yang, owner of Chicago-based Phoenix Bean, which produces high-quality and fresh tofu products. Jenny discussed Illinois soybeans’ role as the key ingredient to producing her products sustainably.

Illinois soybean farmers share the same commitment as food industry stakeholders to provide consumers sustainably grown food ingredients, being good stewards of our land, and reducing our environmental impact. Food industry stakeholder attendees noted that they learned something new about soybean production in Illinois while attending the event.

Join WISHH in the business of untapped protein potential.



**NEW MARKET EXPLORATION
AND DEVELOPMENT**



**DIVERSIFIED STRATEGIC
PARTNERSHIPS**



GLOBAL FOOD SECURITY

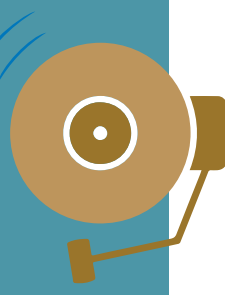
WISHH connects trade and development across global market systems, improves food security, and brings the power of strategic partnerships to our unique market-systems approach.

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WISHH is a program of the American Soybean Association and is funded in part by the United Soybean Board and state soybean board checkoff programs.

SCN Coalition: TAKING THE GLOVES OFF



SOYBEAN RESEARCH &
**INFORMATION
NETWORK**

1

**THE MOST DAMAGING
SOYBEAN PATHOGEN
IN THE COUNTRY**

PERSISTENT OPPONENT

Soybean cyst nematode (SCN) was first discovered in the U.S. in 1954, spreading from North Carolina to the Midwest and eventually into most soybean production areas. By 1974, it had become the most damaging soybean pathogen in the country. **Today, it remains more damaging than any other disease or pest**, causing about \$1 billion in soybean yield losses annually.

PUTTING SCN ON THE ROPES

With soybean checkoff funding through the North Central Soybean Research Program (NCSRP), the SCN Coalition was created in 1997. The goal was to encourage farmers to "Take the Test. Beat the Pest." Training and education were provided to agronomists and farmers, along with free SCN soil sample processing to test and take control of SCN. University SCN testing labs in 1999 reported **an increase from 11% to 736%** the number of SCN samples submitted.



GOING FOR THE KNOCKOUT

By 2015, the list of SCN-resistant soybean varieties in the Upper Midwest showed nearly 90 percent had PI 88788 as a source of resistance. So, in 2016, a newly focused **SCN Coalition was created to prevent a resistance crisis**. The goal is to increase the number of farmers testing and actively managing for SCN across all soybean states. "Know Your Number" is the new aim for farmers to quantify their problem, decrease SCN populations and increase yield potential.



READY FOR THE NEXT ROUND

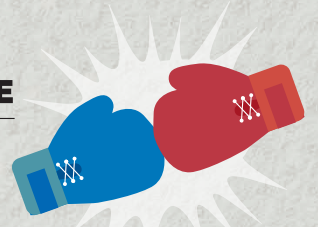
USB and NCSRP developed a National Soybean Nematode Strategic Plan for 2018-2022, which includes funds for the SCN Coalition to explore additional economically important soybean nematodes like root-knot and reniform nematode. **The expansion addresses the growing need of farmers who manage multiple nematodes and associated diseases**. NCSRP is also funding research into the durability of SCN resistance, breeding to improve resistance, relationships to related soybean diseases, and outlining best management practices.



3

ONE, TWO PUNCH: RESISTANCE AND RESISTANCE TO THE RESISTANCE

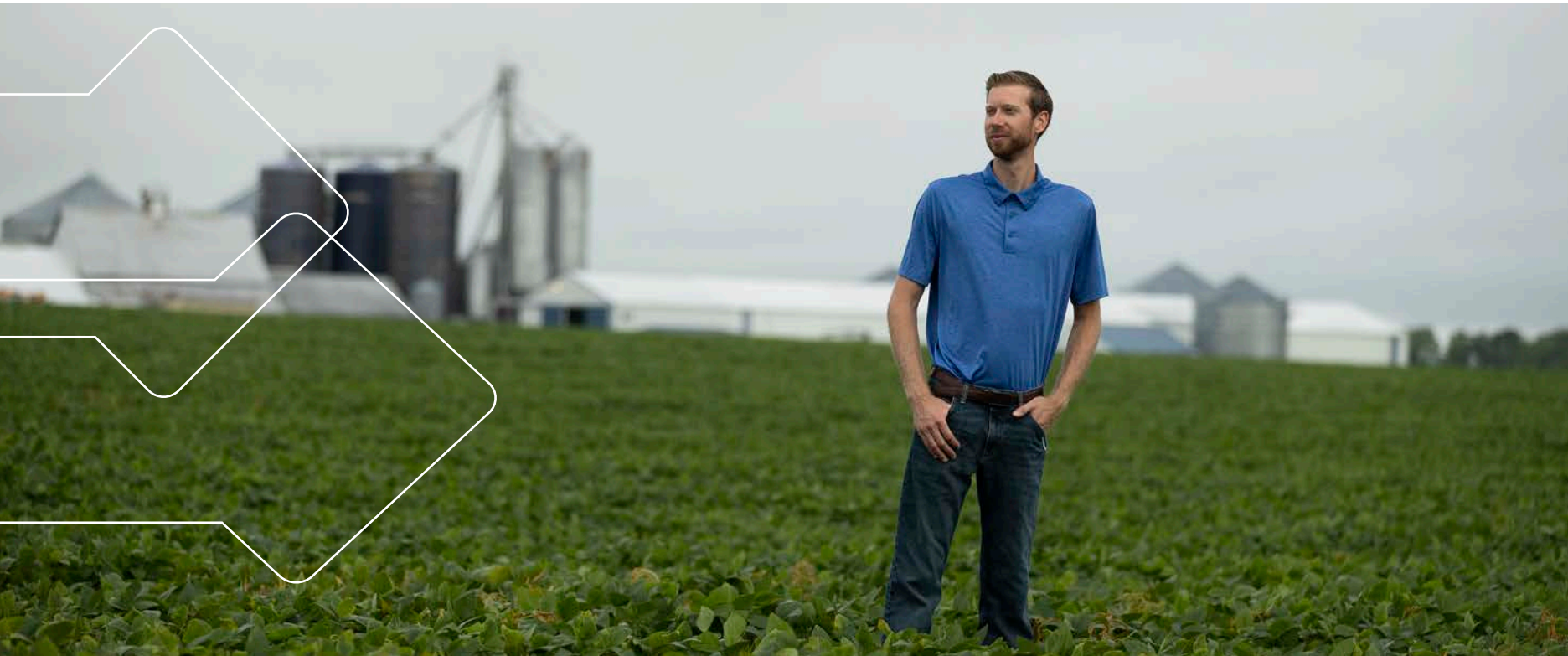
Farmers for about two decades were able to manage SCN with genetic resistance found in many soybean varieties: PI 88788. However, using the same resistance source over and over began to lead to soybean yield losses. **Aggressive SCN populations were able to slowly overcome the genetic resistance**. Checkoff funding shifted to finding breeding solutions for SCN resistance.



**13 NCSRP MEMBER STATES REPRESENT MORE
THAN 355,000 SOYBEAN FARMERS**



The Soybean Research and Information Network (SRIN) is a joint effort of the North Central Soybean Research Program and United Soybean Board. The online resource contains checkoff-funded soybean production challenge research findings with direct links to the respective underlying scientific studies housed in the National Soybean Checkoff Research Database.



Brady Holst is making farm management decisions based off data collected from each of his machines. Building his farm data bank, he's setting his operation up for future success to compete in future carbon and sustainability programs.

Winning the Data Game

By Rachel Peabody

Brady Holst is a 29-year-old farmer from Augusta, Illinois, just trying to make sense of the data game like the rest of us. Capturing digital records from field level activities, and sorting through the latest in climate initiatives, carbon sequestration and water quality programs are on his mind as he looks to the future of his operation. He admits that it's been a lot to comprehend and adjust to over the last couple of years in farming. It seems of late to have reached a fever pitch with many Illinois farmers having more questions than answers at times.

Enter the Illinois Soybean Association checkoff program and a unique data trial with Farmobile, a leader in on-farm data collection solutions. ISA knew that farmers had questions on how to best collect harvest data which is necessary to being able to participate in sustainability and related markets.

A trial with six Illinois soybean farmers last fall, including Holst, helped ISA better understand what the current state of data collection is on Illinois farms, while also demonstrating the value of a standardized data set. The trial analyzed 11,705 acres of Illinois soybeans and yielded 13,864 electronic field records (EFRs) which represent a digital record of every machine pass which was automatically standardized and geospatially organized by field.

High Scoring Holst

Maybe it's Holst's background as an ag engineer or his natural affinity for anything tech, but his trial produced the most comprehensive data collection. Through the installation of six passive up-link connections, or PUCs, on six different machines, Holst was able to establish a digital boundary set.

Put in layman's terms: Holst installed Farmobile's PUC device on his combines and tractors actively involved in harvest. The

PUC collects all machine and agronomic data points, then data is standardized into electronic records that he could download and share. For Holst, this detailed data capture all boiled down to one core benefit: efficiency. Holst compares his new data evaluation method as like going from a flip phone camera's resolution to the latest-generation iPhone. He could now see his acres in high resolution.

Holst immediately applied his data sets to from the '21 harvest to his equipment costs.

"Equipment costs have always been hard to track and it's a substantial input on the farm. I used this data trial to help me collect combine cost efficiencies. I ran a PUC on our older combine and our newer model, both collecting data from every pass," he says.

What Holst Found

"There is a lot of added time and effort in maintenance for the older combine, which I

justified with lower depreciation costs. But at the end of the year, I examined exactly how much the lower depreciation cost decreased the cost per acre when using this older machine. While my assumption of lower total equipment cost was correct, the older combine didn't cover enough acres to make it less expensive per acre when compared to a newer combine. This showed me the need to change some harvest logistics to ensure more acres are covered with the older machine."

Because the Farmobile device is "color blind," Holst could compare equipment efficiencies even on different machinery brands.

This is just one example of how data capture on Holst's farm helped him make a critical inputs decision that will undoubtedly impact his bottom line. With data to analyze, he could make tough decisions with the bias removed.

Holst advocates that data will continue to be the best tool available on the farm.

"Becoming more aware of the type of data to collect, how it's collected, and what that means to my profitability is something I can use across all aspects of our farm," says Holst. "Having good data mindfulness and practices in place on the farm will be imperative as the industry evolves and as farmers look at ways to capture carbon credit data requirements and to navigate ecosystem marketplaces."

Simplifying Data Collection

Steve Cabbage, Vice President of Data Services at Farmobile, believes that farmers need simplified data collection systems that are automatic, standardized and scalable.

"A gap exists in the industry for detailed data that proves field activities and stewardship practices, and it can be a roadblock that keeps farmers from being able to actively participate in carbon markets, or different sustainability or water quality programs," he explains. "We exist to help farmers

think about capturing their data differently, and in a more automated, hands-free kind of way. That's a win-win for all involved."

For Cabbage, there is real satisfaction that exists in helping farmers connect those data dots.

"When looking at a carbon program and the farmer doesn't have the necessary data to participate, they are out by default," he says. "But when they understand what it takes to enter these programs and invest in a data solution, they now can collect, standardize, process and store raw sensor data to document every pass on a field. With the agonistic, real-time Farmobile solution, the farmer still controls and owns all of their data and they can access, download and share raw data sets anytime. Our goal is to help farmers understand data's role on their farm, and then make it really simple to use."

Applying What We Learned

ISA Director of Agronomy, Abigail Peterson, recommends that Illinois farmers start thinking about the data they collect on farm if not already, and



Farmobile's PUC™ is an in-cab device that captures a farm's agronomic and machine data with every tractor pass.

believes the Farmobile trial captured good takeaways all farmers can learn from.

"The trial was yet another reminder that the industry needs a data standard and a standardized data checklist required by all sustainability programs. It was also a good exercise for us to learn how to begin approaching farmers about the data these new programs are asking them to provide. To a lot of growers these program requests - like documentation of tillage-related activities for example - are a completely new ask," says Peterson. "As a checkoff, I think we are well positioned to be

that partner for the farmer to help them know what to expect, and then to be there to provide helpful resources as they navigate on-farm data collection of their own."

Above all, Peterson encourages farmers to learn the rules of the data game so they can be well positioned to compete in today, and tomorrow's, sustainability programs.

"It's hard to compete, or even begin, when you don't know what's required of you to get started. On-farm data collection doesn't have to be complex, but it does require some thought and planning," she says.



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THE FACT IS, IT PAYS TO USE BIODIESEL.

Funded by the Illinois Soybean Association Checkoff Program.

B20 biodiesel made from Illinois grown soy fuels your bottom line. B20 adds more than 10% to the price of soybeans. In addition to being a quality fuel source, B20 also reduces soy protein waste which aids your financial stability. And Illinois offers farmers incentives to use biodiesel so B20 is often less expensive than fuel made from foreign oil. Today's biodiesel is better than ever. Discover the truth and fuel up today. To learn more visit, ilsoy.org/farmer-resources-biodiesel.





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All soybean farmers, including you, are busy replacing petroleum with your soy oil. How? By pooling your resources through your soy checkoff. Learn how your soy checkoff is bringing tangible returns back to you and your operation at unitedsoybean.org/hopper.



Moving Soy Forward.
Moving You Forward.

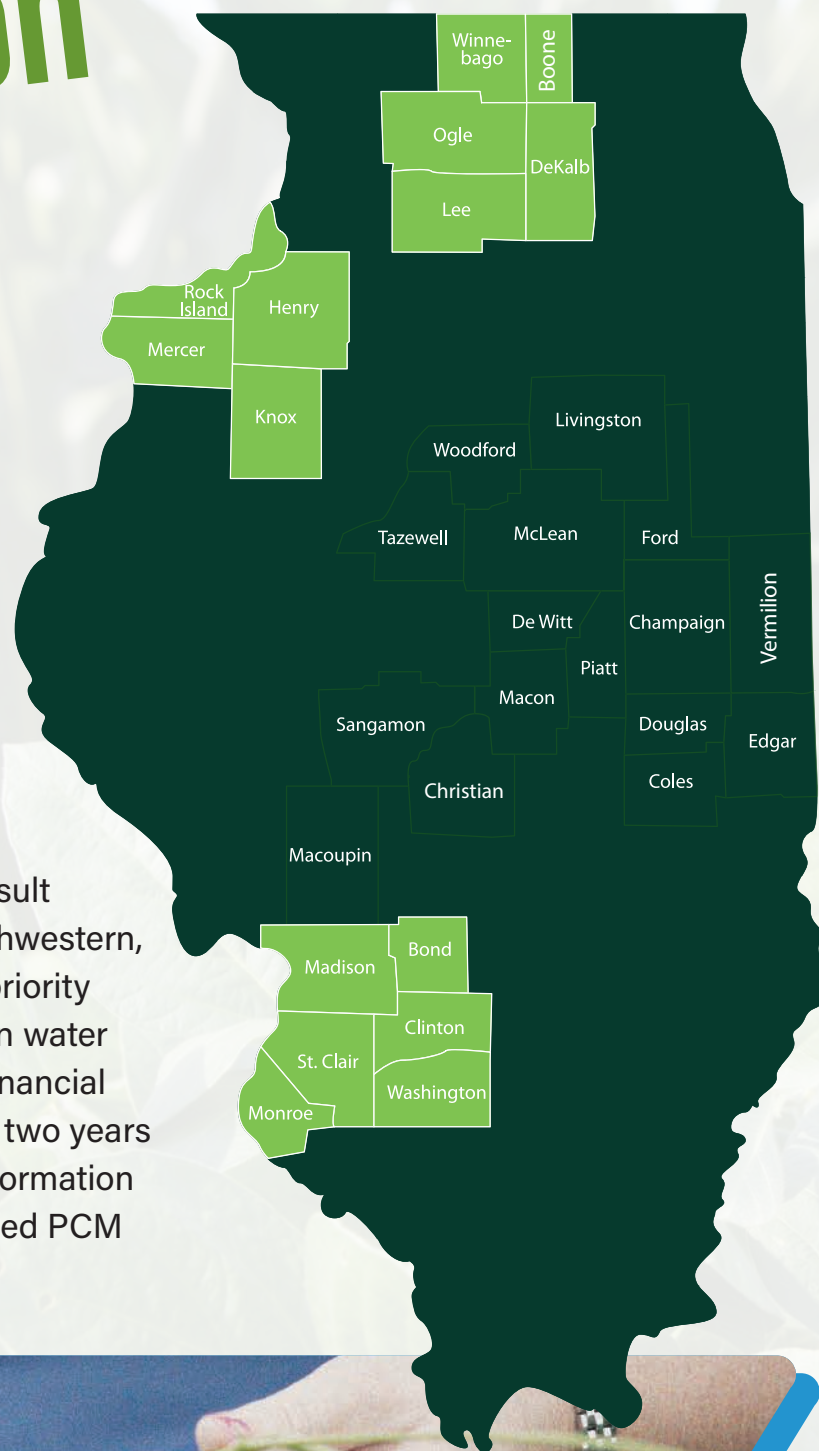


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Farm Incomes, Conservation Outcomes

Precision Conservation Management (PCM), a program brought to farmers by IL Corn and the Illinois Soybean Association, works to research on-farm conservation practices and the financial implications of their adoption. PCM combines precision technology and data management with farm business and financials to help farmers manage, adopt, and adapt conservation practices long-term and improve on-farm decision-making.

With the new partnership, PCM's staff doubled in size in 2021, onboarding three more specialists to recruit and consult farmers in three additional regions of the state: north, northwestern, and southwestern Illinois. PCM selects regions based on priority watersheds where we know we need to make an impact on water quality or other conservation goals. Along with exclusive financial and technical assistance, PCM farmers are paid \$750 over two years for enrolling, which entails providing field locations and information on their passes through their field, adding to the anonymized PCM housed database.



Funded by the Illinois Soybean Checkoff



“

It's been amazing being able to work one-on-one with farmers in Northern Illinois to support them with integrating new conservation practices into their operations and helping them to understand the financial implications that go along with it

- Alexa Rutherford, PCM Specialist

“

The program focuses on seven regions across Illinois, but these new regions will actually allow PCM to expand its assistance to farmers outside of the specialists' range. Expansion will allow the PCM dataset to have viable data from nearly every soil type and productivity level found throughout the state. Publicly published data through PCM's website, farmdoc articles, and other mediums will give farmers who aren't enrolled in PCM the confidence to implement cover crops, minimum tillage, and enhanced fertilizer plans with reduced risk and ensured bottom-line results from the aggregated data.

- Clay Bess, PCM Operations Manager



If you are interested in joining this great program and learning more about how conservation decisions can improve your farm's financial net return, **visit precisionconservation.org and enroll today.**



Rob Shaffer's path from ag salesman to established farmer leader and national board director has been a process of self-discovery, absorbing the lessons of prior farm leaders and mentors.

Soy Story with Rob Shaffer

By Betsy Osman

Rob Shaffer isn't one for small talk. He's about big talk. He doesn't give canned answers about the weather or tiptoe delicately through difficult conversations. And despite his unreserved, casual milieu, Rob is an inquisitive thinker and a voracious learner who's constantly probing for uncomplicated answers about how to connect in a complicated world. His warm sense of humor makes you feel comfortable, as though you're sitting across the table from an old friend.

He's invested in local growth, but he thinks globally. He can recall dates with impressive speed and accuracy. And he has a mantra for every occasion.

Rob has been farming since he was old enough to carry a bucket. His great-great grandfather first bought 80 acres in El Paso, Illinois, where his family raised livestock, corn and soybeans. He attended Joliet Junior College for two years, then went on to Illinois State University where he studied ag business and animal science. After his graduation, Rob took a job in ag sales and traveled the Midwest before finally returning to rejoin the family farming operation alongside his father and brother.

Today, the Shaffer brothers oversee the 900-acre El Paso family farm in a 50-50 relationship. Rob, his wife, Jennifer, and brother, Emory, are raising their sons Bobby age 16, Luke age 15,

and Jacob age 13, to be the next generation of Shaffer family farming.

Rob will tell you that the path from ag salesman to established farmer leader and national board director has been a process of self-discovery, absorbing the lessons of prior farm leaders and mentors. Over his career, he has served the Illinois Soybean Board, the American Soybean Association Board, the National Biodiesel Board, and a host of locally-governed organizations.

"Being part of these organizations has widened my thinking. It's encouraged me to see our role as farmers as an international contribution," says Rob. "My father never worried about whether it was dry on the other

side of the world, or what China was doing with U.S. soy. Today we enjoy a new level of interconnectedness that previous generations didn't, and being part of these organizations helps me feel like I'm participating in the global economy."

He continues, "We have very bright thinkers at the state and federal levels, and I love being in the same room with them. These folks are open to sharing their lives, their business practices, their successes and their failures. I want to be that kind of leader; the kind of leader who wouldn't call himself a leader."

Though he doesn't describe himself as an environmentalist, Rob is a trendsetter in the ways of sustainable farming

and conservation practices. While attending board meetings in Washington, D.C., Rob was first introduced to fresh-to-the-scene carbon market programs and began conducting his own research. Since then, he's watched programs undergo changes, he's learned much about science-based approaches to climate-smart farming practices, and he's become a big fan of straightforward programs that reward farmers being good to their land. He admits that the right fit probably varies some from farmer to farmer, and understanding the options available in the carbon landscape is a great place to start.

"In the beginning, I had more questions than answers when it came to the carbon market," he says. "I tried to find unbiased resources, like *Farm Journal*, that provide a wholistic view of the carbon landscape.

But what I've discovered is that farmers who take the time to do the research, find a program that fits their needs and enroll will not only get paid for their practices, but they may also see improved soil quality on their farms and potentially reduce greenhouse gas emissions. When done right, it's a win for the environment and it puts money back in farmers' pockets."

He continues, "The key is to find a program that is farmer-focused and offers simplicity, flexibility and certainty in creating a revenue stream for growers who implement climate-smart farming practices, like strip-till, no-till and cover crops. The best programs will help you mitigate the learning curve, and won't require a large capital investment."

At the 2022 Commodity Classic in March, Rob partic-

ipated in a panel discussion with the U.S. Bayer Carbon team to discuss building long-term revenue streams while protecting the land. Rob shared his own journey, transitioning to cover crops and no-till, what benefits he's seen since transitioning, what challenges he's had, and what advice he would give to farmers thinking about making the transition to climate smart practices.

"Rob represents a group of growers we are proud to partner with," says Audrey Ball, Carbon Grower Pipeline Manager for the Bayer U.S. Crop Science Division. "They're the growers in a high-yielding, soil-rich environment that are willing to try cover crops and no till or strip till and see how their operation benefits; the farmers who feel protective of their lands, and have their eyes on the future."

Continues Ball, "Our market research tells us that 85 percent of farmers are considering joining a carbon program over the next few years. What we know is that pioneering this new space is a journey best traveled with experts who can offer support and guidance, and colleagues, like Mr. Shaffer, who understand the process."

Though Rob may endeavor to be more like his mentors who willingly offer up their stories, their business practices, their successes and their failures, he possesses an endearingly modest inability to recognize himself among the group of frontrunners powering the soy industry into a sustainable, profitable tomorrow.

He's the kind of leader who wouldn't call himself a leader. He'd rather tell you a joke, ask you how you're doing, and then really listen for the answer.



Rob and his wife, Jennifer, and their sons Bobby (age 16) and Jacob (age 13).



Q&A With the Soil and Water Outcomes Fund New Illinois-Based Agronomist



KEVIN SCHABACKER | AGRONOMIST |
SOIL AND WATER OUTCOMES FUND

The folks at the Soil and Water Outcomes Fund (SWOF) have learned a thing or two about farming to maximize environmental outcomes and generate value. The organization's new Illinois-based Agronomist, Kevin Schabacker, works with farmers and affiliate recruiters on enrollment and helping enrollees succeed throughout the season. Join along as we get to know a little more about Kevin!

Tell me about your background and education.

I grew up on a no-till grain farm in Ogle County, Illinois. I earned an associate's degree from Kishwaukee Community College before going on to Southern Illinois University Carbondale where I earned a bachelor's degree in Crop, Soil and Environmental Management. My previous work experience includes working with crop protection research trials, retail agronomy and most recently, working in plant breeding.

What is the Soil and Water Outcomes Fund?

The Soil and Water Outcomes Fund is a partnership of AgOutcomes and ReHarvest partners that provides financial incentives to farmers who are willing to adopt new conservation practices on their farm that yield positive environmental outcomes like carbon sequestration and water quality improvement.

What interested you about working in the carbon space?

I am very interested in sustainable agriculture and conservation, and I can say most of that interest was cultivated growing up on our no-till farm and seeing the benefits of these practices firsthand. Carbon has seemingly taken the front seat on driving new conservation practices that will help preserve and improve resiliency of farms for generations to come.

Why did you choose SWOF as the next step in your career?

I believe SWOF is truly unique in that we pair water quality improvements and carbon together. Conservation practices required for carbon markets are also improving water quality, and by quantifying these outcomes alongside carbon, we can maximize grower payments and continue to drive adoption of new conservation practices.

What has been the most surprising thing about your job so far?

I am very impressed with how SWOF has been able to scale. What started out as a pilot program in Iowa with about 9,500 acres, has now expanded to over 125,000 acres across five states

in 2021. We are looking to enroll 50,000 acres in Illinois alone in 2022.

What is something you've learned that you didn't know before joining the SWOF team?

Over 80% of greenhouse gas emissions from companies in the agriculture/food/beverage sector are tied to purchased goods and services, which includes goods and services purchased from farmers. These companies can reduce their emissions by working to reduce scope three insets, which are the carbon emissions from within their supply chain.

If you could sell the SWOF program to a grower in under one minute, what would you say?

If you are interested or even curious about adopting new conservation practices, talk with SWOF about how we can help!

When it comes to implementing conservation practices, what is the biggest concern you typically hear from growers and how do you address it?

Farming is a business that needs to be profitable in order to be sustainable. Many farmers understand that conservation practices such as a reduced tillage program or adding cover crops are beneficial overall for their farm long-term, but there are risks with trying something new on your farm especially when profit margins are tight. Generating environmental outcomes by participating in SWOF is a way to help balance that financial risk, whether it be trying a new practice on just a few acres or if you are ready to scale a new practice over your entire farm.

What's your favorite crop?

This might be surprising, but peas.

What's your favorite cover crop species?

A green one!

What's your favorite agricultural season?

Harvest. I like to see the end result of the crop year and love fall weather.

What else would you like Illinois soybean farmers to know about you?

I was a 2013-2014 recipient of one of five scholarships that the Illinois Soybean Association awarded to SIUC Crop Science majors. I'm happy to bring what I learned back around to Illinois soybean growers.

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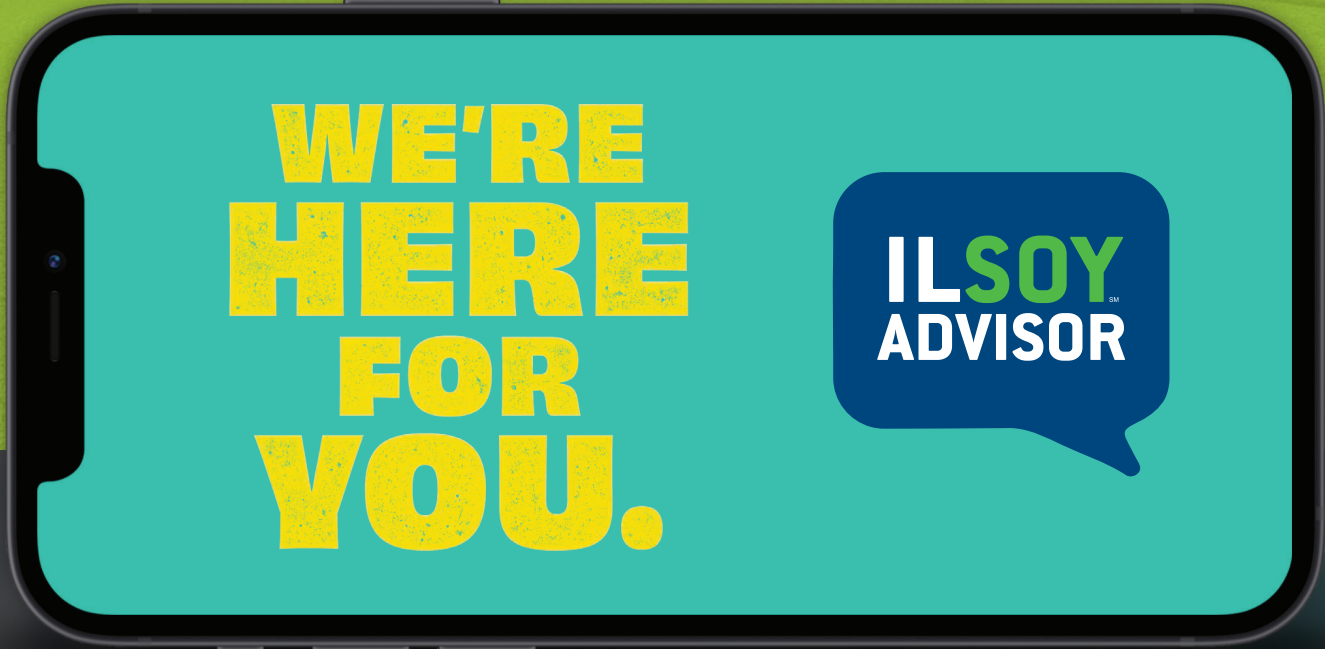
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