

# MISSOURI

Soybean Farmer

APRIL  
2021

## Counting Carbon

A new pilot project is providing hands-on education around carbon markets and trading.

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## Cover Crops and Yield

The Missouri Soybean Yield Contest has a new category for 2021 in response to increases in cover crops.



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INSIDE THIS ISSUE OF

# MISSOURI Soybean Farmer

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**12** *The opportunities biodiesel provides across Missouri, including economic and environmental advances, aren't lost on these leaders.*



**24** *Agriculture has gotten some pretty negative press when it comes to climate change, but a new study from the University of Missouri says farmers are leading where it counts.*



**31** *From Simon the Soybean to Henry Ford, ag literacy and educational programming is front-and-center for many students thanks to the soy checkoff.*



## « Cover Shot

*Jason Jenkins of Mill Creek Communications captured this shot highlighting healthy soil and the growing use of cover crops across Missouri.*

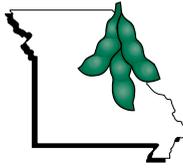


## Missouri Soybean Association

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Missouri Soybean Farmer is published six times annually and is an excellent opportunity to reach row-crop farmers. Contact Dave Larson at (515) 440-2810 or [dave@larsonentllc.com](mailto:dave@larsonentllc.com) for advertising information.

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# From The Field

Notes from Missouri Soybeans' leadership team

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Pat Hobbs, Dudley  
Meagan Kaiser, Bowling Green  
Lewis Rone, Portageville

## ASA Board Members:

C. Brooks Hurst, Tarkio  
Matt McCrate, Cape Girardeau  
Ronnie Russell, Richmond

The Missouri Soybean Association has been hosting on-farm demonstrations and implementation for sustainability and conservation practices for many years at the Bay Farm Research Facility and in partnership with the soy checkoff and other organizations. More recently, those partnerships are behind a report quantifying Missouri farmers' impacts on key measure of climate change – including carbon – and exploring the opportunities ahead for carbon markets and trading. Nationally, the American Soybean Association is building on that work with a new digital clearing house for sustainability work and goals – supporting future partnerships and collaboration.



Sustainability has become a buzz word for many. It's aspirational, certainly, and has a strong foothold in marketing. I hope you'll think of it as more than that. To be more sustainable is an honorable goal to have, because at its heart, sustainability is about investing for the long run. And in agriculture, that points squarely at stewardship of our soil and water resources.

There's nobody any closer to the soil than we are as farmers. Whether it's under our fingernails or the foundation of our business decisions, it's something we couldn't continue without. We truly depend on it for our livelihoods, our families. I'm incredibly proud to see farmers recognized for their contributions in this area, and to see the commitment to continuous improvement on full display in this issue.

**Ronnie Russell** - Missouri Soybean Association President

“Empowering Missouri soybean growers through innovation.” This is the mission of your state soy checkoff, and I reference it often because it serves as a reminder to ourselves and our partners as the benchmark for all that we do.

But what does this mean, and how do we measure results? The farmers you have elected to serve on the MSMC board begin every meeting with this mission statement. It directs the decisions we make on behalf of Missouri farmers.



The story of soy checkoff investments is one full of successes, from work to develop biodiesel thirty years ago to the discovery of a novel high oleic trait currently being incorporated into our breeding program. Though clearly innovative, how have these checkoff-funded projects empowered you, the grower?

Consider biodiesel, which contributes 14 percent to the value of soybeans. Missouri ranks second in biodiesel production, and that industry has brought expansion and modernization of soybean crush facilities to strengthen local basis. High oleic technology is poised to make soy an attractive player in both the edible and industrial oils markets, while empowering farmers with the ability to capture additional value.

For as much success is behind us, promise awaits. Our annual research report, provided here, is your guide to your soybean research portfolio. From pest management to new uses, your support of the checkoff empowers us all.

**Kyle Durham** - Missouri Soybean Merchandising Council Chairman



# Letter from the Executive Director

Every dollar behind the work of your Missouri Soybean Association, Missouri Soybean Merchandising Council, and the Foundation for Soy Innovation is an investment in the kind of future you want for soybean production in our state. Whether that dollar is routed through your soy checkoff for research, education and growing demand for soy, or comes in support of policy work or scholarships, the commitment to looking forward translates clearly.

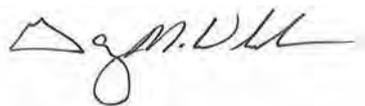
That forward thinking is at the heart of how we serve you, our growers. It shows in the commitment to innovation and through the pillars of our strategic plans across the board. It's also fuel for the servant leaders you'll find on the boards of directors and among the staff.

Throughout this issue of Missouri Soybean Farmer, I hope you'll see that commitment to looking forward. This issue includes the Annual Research Report, where the priorities farmers share with our team throughout the year are transformed into research and demonstration projects supported by your soy checkoff. Each project addresses specific challenges, from weed and pest management and genetic diversity, to implementation for conservation and sustainability practices and growing markets for soy. And in keeping with our commitment to transparency, with each project you'll see the details of the researcher(s) leading the project, and the amount of funding coming from your Missouri soybean organizations.

In this issue, you'll also find a special focus on carbon. Specifically, you'll find our director of environmental programs highlighting work happening now around key measures of climate change. Two points I'm especially excited about: 1) A new study clearly showing farmers' positive impacts on greenhouse gases and sequestered carbon, and 2) A new program exploring developing carbon markets and trading – setting us all up to better understand the economic and environmental opportunities carbon presents Missouri farmers.

Thank you for the trust you continue to place in your state soybean organizations, and for the time you share with us. We look forward to hearing from you, and seeing you again soon.

God Bless.



**Gary Wheeler**

Executive Director / CEO  
Missouri Soybean Association  
Missouri Soybean Merchandising Council  
Foundation for Soy Innovation





*Casey Wasser serves as the Director of Policy for the Missouri Soybean Association and Merchandising Council. He represents Missouri soybean farmers on policy issues at the state and federal levels.*

# Soybean Policy Update

The April issue of *Missouri Soybean Farmer* is always on the heels of Missouri's Legislative Spring Break and in your hands during a high-throughput time for legislation in the Statehouse, as well as a time this year where regulatory reforms are likely to come from the new administration in Washington, D.C.

## State Policy Update

At the state level, we've seen session cut short two weeks so far — one week lost to COVID-19 and one to winter weather. This session has been filled with issues important to soybean producers, including biodiesel and renewal for tax credits available through the Missouri Agricultural and Small Business Development Authority (MASBDA). When the Legislature returns from the annual break in late March - just like your operations on the farm - it's go time.

Legislation setting a standard level of blending biodiesel into every gallon of diesel fuel has moved forward in the legislative process since our last update. HB529, sponsored by Rep. Haffner of Pleasant Hill, was Perfected in the House prior to the spring break. This legislation requires 5 percent biodiesel in the winter months and 10 percent biodiesel in the summer months. We're excited about the support we've received from



the other commodity groups and Farm Bureau, MFA Oil and Consumers Oil, and our corporate partners in ADM, AGP and Cargill. Unfortunately, as of this writing, we've continued to receive opposition from companies, including Kum and Go, Joplin 44 Petro and Warrenton Oil, regardless of how many changes to the bill we are willing to offer.

I don't know about you, but I know I seek out MFA Oil products and locations every chance I get—they're sticking with the farmers and I plan to stick with them!

The MASBDA tax credit renewal legislation, sponsored by Sen. Hoskins and Rep. Francis, has been heard in both chambers and voted out of their respective committees. Supporting

MASBDA and the programs that make it possible is a priority for the Missouri Soybean Association because we see the impact it has firsthand.

MASBDA tax credit programs have generated an estimated value of \$247 million in direct and indirect benefits to Missouri since fiscal year 2000. Programs like the New Generation Cooperative Incentive Tax Credit Program were instrumental in the development of both ethanol and biodiesel plants in Missouri. Importantly, this program is farmer led and must be majority farmer owned. In the case of biodiesel plants, this program not only adds value to agricultural commodities and reduces soybean meal costs, but it provides real investment opportunities that infuse cash back into the farming

community. The Meat Processing Facility Investment Tax Credit Program is another credit program that has a track record of positive results since its inception in 2018. This credit stimulates investment in meat processing to enable the livestock industry to capture more value in the form of further processed products. Meat processing facilities located in Missouri that construct, improve, or acquire buildings, facilities, or equipment used exclusively for meat processing are eligible. According to MASBDA, this credit has been issued 47 times and created 484 jobs.

We look forward to continuing to push for passage of this important legislation for growing opportunities for the soybean value chain and all of Missouri agriculture before session ends in May.

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## Senator Blunt Announces Plans for 2022

Missouri has long counted on Senator Roy Blunt for leadership, most recently as a senior member of Missouri's congressional delegation. In early March, Senator Blunt announced that he has no plans to be a candidate for the Senate.

The Missouri Soybean Association and Missouri Soybean Merchandising Council shared a statement immediately after the Senator's announcement:

*Senator Roy Blunt has shown great dedication to issues facing soybean farmers and all of Missouri agriculture. His record is strong in protecting farmers' freedom to operate and in supporting research and market development. Throughout his years of service, he's consistently made himself available to resolve issues – both big and small – to ensure producers have the tools they need.*

*Senator Roy Blunt has truly delivered for Missouri. His hard work has left and will continue to leave a lasting impression on our state.*

Prior to his service in the Senate, Blunt represented southwestern Missouri for seven terms in the U.S. House of Representatives and as Missouri's Secretary of State.

The announcement opened the gate for what looks to be a crowded primary field for the seat. Missouri Soybean Association staff are monitoring the discussion closely and will work with candidates to ensure issues facing soybean growers and their partners continue to be top of mind. To learn more or connect with Missouri Soybean staff, visit [mosoy.org](http://mosoy.org)



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### Federal Policy Update

As the Environmental Protection Agency (EPA) transitions into the Biden era, we should expect both positive and negative regulatory policies impacting soybean producers. The EPA announced its support of the January 2020 10th Circuit U.S. Court of Appeals interpretation of the Renewable Fuel Standard (RFS) small-refinery exemption (SRE) provisions. Under that 10th Circuit decision, the Court decided SREs cannot be granted if they are not already in place for a given facility.

On the EPA website, the agency stated that, “an exemption must exist for EPA to be able to ‘extend’ it. EPA has agreed with the Court that the exemption was intended to operate as a temporary measure. Consistent with that Congressional purpose, EPA affirmed the plain meaning of the word “extension” refers to continuing the status of an exemption that is already in existence. This is good news for biodiesel producers.

Although we see positive signs on biofuels, how the EPA enforces water regulations will be a very different story. President Biden has issued executive orders that call on his administration to review changes to WOTUS that President Trump made in 2017 through the Navigable Waters Protection Rule.

On a Missouri-specific action, the EPA acted on December 7, 2020, publishing “Public Comment Period – EPA’s Action to Add Waters to Missouri’s Impaired Waters List.” The notice provides a 60-day public comment period, which was scheduled to close February 6, 2021.

At the request of several groups in opposition, including the Missouri Soybean Association, the comment period was extended to March 22. Thoughtful and analytical comments require an evaluation of the dataset used in EPA’s decision to partially disapprove and identify 40 waters for inclusion on Missouri’s 2020 303(d) List. However, the data used to recommend listing the additional waters was not added to the

...continued on page 10.

*“ I know I seek out MFA Oil products and locations every chance I get -- they’re sticking with the farmers and I plan to stick with them! ”*

-Casey Wasser

## ASA: American Rescue Plan

**O**n March 11, President Biden signed the American Rescue Plan Act of 2021, a \$1.9 trillion economic stimulus package March 10. In addition to another round of stimulus payments for Americans, the package emphasizes aid for families and state and local governments impacted by the COVID-19 pandemic.

The relief package appropriates \$3.6 billion for USDA Secretary Vilsack to support the food and ag sector supply chains, including grants and loans for personal protective equipment and funding for COVID-19 testing in animals.

Other important agricultural provisions in the package include:

- \$1 billion in assistance to and support for community-based organizations and 1890 Land Grant and other minority-serving institutions that work with Black farmers and other farmers of color on land access, financial training, heirs property issues, training the next generation and access to education
- Farm Loan Assistance for Black farmers and other farmers of color
- Extending 15 percent SNAP benefit increase through September 30, 2021
- \$37 million to the Commodity Supplemental Food Program to fill a gap that has grown as food for this program has become scarcer during the pandemic
- \$500 million in Community Facility Program funds to help rural hospitals and local communities broaden access to COVID-19 vaccines & food assistance
- \$100 million in overtime fee relief to small meat and poultry processors currently grappling with COVID-19-related backlogs
- \$800 million for the Food for Peace program, including for purchases of U.S.-grown crops used in international humanitarian aid

To learn more about legislation affecting soybean producers and the American Soybean Association’s advocacy work, visit [soygrowers.com](http://soygrowers.com). 





[unitedsoybean.org](http://unitedsoybean.org)

# INVESTING IN NEW MARKETS FOR U.S. SOY

*From promoting the profitability of using high-quality soybean meal in India to training animal producers on nutrition in Colombia, the soy checkoff is working behind the scenes to develop more market opportunities for U.S. soy. We're looking inside the bean, beyond the bushel and around the world to keep preference for U.S. soy strong. And it's helping make a valuable impact for soybean farmers like you.*

*See more ways the soy checkoff is maximizing profit opportunities for soybean farmers at [unitedsoybean.org](http://unitedsoybean.org)*

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public notice page until December 22, 2020.

MSA will be submitting a comment letter before the extended deadline that advocates for a data-driven, reasonable approach. Our members own and farm substantial amounts of land within and around watersheds of lakes listed as impaired, according to the EPA.

For this reason, nutrient regulation and subsequent impairment decisions within these watersheds are of utmost importance to our members. 



#### Want to know more?

Members of the Missouri Soybean Association receive regular email updates on policy and regulatory movement in Jefferson City, Washington, D.C., and elsewhere Missouri soybean farmers' bottom line stands to be affected. Visit [mosoy.org](http://mosoy.org) for details.

## ASA: 2021 Resolutions Approved

**M**embers of the American Soybean Association (ASA) have completed the organization's annual resolutions process to set the tone and direction for policy advocacy in the weeks and months ahead.

As is typical with any "out with the old, in with the new" activity, the organization aims each year to build on sound existing resolutions by adapting where needed and supplementing with new resolutions to address emerging priorities. One such example of a soy priority on which the organization is focusing more this year is climate and conservation.



Kevin Scott, ASA president and soybean farmer from Valley Springs, South Dakota, said, "Throughout this year's document we recognize the role that climate and conservation will play in policy discussions in 2021, from thoughtfully addressing development of public and private ecosystem services markets to promoting precision agriculture technology as a tool to improve environmental stewardship while providing economic returns for growers."

Changes and additions for 2021 run the full gamut. Among the approvals are resolutions supporting:

- Trade Promotion Authority (TPA) reauthorization
- A sufficiently-funded Commodity Credit Corporation (CCC) account to ensure timely benefits to farmers
- A strong farm safety net and crop insurance program, including support for expanding double crop soybean coverage
- Federal efforts to boost precision ag technology availability and grower adoption
- Increased federal funding to provide conservation technical assistance to growers
- USDA's Natural Resource Conservation Service's definition of soil health
- Development of voluntary carbon markets that incentivize agricultural conservation
- Significant increases in rural infrastructure funding
- Changes to the traditional gas tax to reflect the increase in EVs/hybrids on the road to support the Federal Highway Trust Fund
- Identifying additional funding mechanisms for rural broadband investment and deployment
- Increased utilization of higher-blend biodiesel to lower emissions and improve air quality
- Reducing barriers and increasing access to improved genetics and crop protection tools that lead to improved environmental outcomes

The ASA resolutions process has been a monthlong series of input from state delegates, ASA board members and other farmer-leaders and staff who serve on ASA's advocacy teams covering the various soy policy areas. Recommendations are funneled from state members into resolution subcommittees, which then hone the language that is finally voted on by delegates. The process is conducted in multiple stages to allow ample input, revisions, and improvements from ASA membership across the soy states and culminates in the final voting process, held this year on Feb. 25. 



[unitedsoybean.org](http://unitedsoybean.org)

SOY



## RESEARCHING A BETTER BEAN

*Whether you're dealing with drought, flood, heat or other climate-related stress, the soy checkoff is working behind the scenes to diversify U.S. soybean genetics and increase stress tolerance. We're looking inside the bean, beyond the bushel and around the world to keep preference for U.S. soy strong. And it's helping make a valuable impact for soybean farmers like you.*

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# Biodiesel: Proud Partners

*Biodiesel's roots and future are in agriculture, and the roles biodiesel plays on the farm and in society should be heralded.*

**By Ron Kotrba**

RonKo Media Productions

The United States produced nearly 1.82 billion gallons of biodiesel in 2020, according to Energy Information Administration data. Nearly 8.4 billion pounds of soybean oil was used to make this volume of U.S. biodiesel last year, which represented 61.5 percent of the feedstock share. Interestingly, even though 2018 U.S. biodiesel production volumes were 40 million gallons higher than last year's, 841 million more pounds of soybean oil was utilized for biodiesel in 2020 compared to two years prior.

What this jump in soybean use for biodiesel production in 2020 shows is how important feedstock diversification is for biodiesel producers, and how adaptive both U.S. biodiesel manufacturers and the soybean complex truly are. The practice of diversification can best be described as a risk-management tool to shield against unforeseen circumstances. Colloquially speaking, it's the art of not putting all your eggs in one basket.

There is an interesting misconception that only oilseeds like soy or canola tie biodiesel to agriculture. But every major biodiesel feedstock originated on the farm. As such, biodiesel and farmers are inextricably bound together - partners from the beginning and well into the future.

By its very nature, the origin of U.S. biodiesel was an effort in diversification. Farmers were burdened by the glut of soybean oil on the market in the late 1980s and early 1990s, which was a drag on soybean prices and had a direct impact at the farmgate.

"It's important to keep in mind why biodiesel is so important to farmers in terms of price support," says Kyle Durham, a sixth-generation farmer from Carroll County about an hour east of Kansas City. "Biodiesel helped chew through a glut of soybean oil on the market in the early 1990s."

Soybeans are not grown for the oil or biodiesel, nor are they often fed whole as feed. Soybeans

are planted, harvested and crushed, separating the oil and high-protein meal. The meal is primarily destined for livestock feed.

Without a biodiesel industry, that 8.4 billion pounds of soybean oil consumed in domestic methyl ester manufacturing last year would have put farmers in the same position they found themselves 30 years ago—having a surplus of soybean oil on the market and much lower income. In fact, given that soybean oil is only about 20 percent of the whole bean, if biodiesel ever were a driver for farmers to plant soybeans, then it would have a price-lowering effect on soybean meal, which constitutes the other 80 percent of the soybean.

But history has shown us that as world populations grow, and as standards of living across the populations increase, meat becomes in greater demand and, as such, demand for protein meal for livestock feed also rises. Thus, more oil than could ever be consumed in human diets is liberated, and outlets like biodiesel to consume them are necessary to keep soybean prices from falling through the floor.

The soybean checkoff program has been invaluable in developing new markets for soybeans. Some pan out. Others don't. But the checkoff program was instrumental in the early days of U.S. biodiesel development—one of those checkoff endeavors that has clearly paid off—and it is still a vital component of biodiesel's continued success.

Farming in America is fundamentally a coalescing of the past with the future, tying land stewardship with productivity. This is exemplified through multiple generations leveraging technology to produce more with less on lands their ancestors toiled—to leave the fields and their ability to provide in better shape for future inheritors.

It is here, at this nexus of on-farm diversification, livestock, a soybean checkoff program, environmental stewardship and technology where biodiesel was born, lives and thrives.

### Diversification

Farmers implement diversification in many different ways. “Diversification to me means doing things on my farm that insulate me from extreme financial events, like putting my dollars and sweat into things that can't be completely erased,” says Garrett Riekhof, a fifth-generation farmer in Lafayette County, Missouri, east of Kansas City. While most of his peers grow yellow corn, Riekhof says his diversification strategy incorporates white corn for specialty markets.

“It's not that diverse or unique, but it's consistent and, over time, it gives me a better edge,” he says.

In addition, Riekhof performs his own earth work and soil conservation practices on the nearly 2,000 acres he operates under GR Farms, including drain tile and terracing. “It lubes the wheels for greater yield in the future,” he says.

Although cover crops create media buzz, Riekhof is personally skeptical of the economic benefits they provide. “They can cost you more than they gain for you,” he says. “They're hard to absorb efficiently and make financial gains in your operations, especially if you don't have livestock.”

If livestock is in play, however, cover crops make much more economic and agronomic sense, according to Riekhof. “If you just row crop, it's tricky financially and agronomically to make cover crops pay,” he says, adding that his wife has a dozen cow-calf pairs “so she feels at home.”

“Her family exclusively raises beef cattle,” Riekhof says, “so it helps us keep in touch with what that side of the family is doing.”

Durham says diversification “boils down to risk management.” Historically, many farms in the Missouri River bottoms were diverse in row crops and animal agriculture.



*Kyle Durham*

“Over time, however, animal ag in the area is pretty well nonexistent now, in no small part to the flood risk,” Durham says. “My grandpa raised hogs, which paid for the farm over time. He got out of livestock in the 1960s, and we've been predominantly row cropping since then. In our operations, when we talk diversification, we look at any additional revenue streams we come across.”

For the past 10 years, Durham has worked in contract production of seed stock, “mainly just to bring a diversity of maturity groups in the varieties and hybrids we grow across our farm,” he says.

Glen Cope is a fourth-generation cattleman who runs a cow-calf operation in Aurora, Missouri, in the southwest part of the state, on land his great grandparents settled in 1910. “The old adage that you can't put all your eggs in one basket is true,” Cope says. “So, in addition to our cow-calf operation, we background a lot of cattle we purchase off the farm.”

While Cope doesn't row crop, he has a 40-year-old combine in the shed used

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to harvest fescue seed when the price is right. "It's supplemental income," he says. "It helps get us through the tough years when the cattle market is not as profitable as I'd like it to be. It helps pay the bills and reduce debt. It's extremely important to be diversified."

### Livestock

Thirty pounds of protein and 22 pounds of carbohydrates and dietary fiber enter the food supply with every gallon of biodiesel produced from soybean oil, according to the National Biodiesel Board (NBB). Much like biodiesel producers, Cope relies on soy byproducts for his cow-calf operation.

"One of the primary ingredients we use in feed is soybean hulls—as well as the soybean meal, obviously," he says. "We've been in the cattle business for a long time, well before biodiesel became mainstream, and we've not seen any significant price increase since biodiesel production took off. In my experience, there is no merit to claims that biodiesel increases feed costs." Cope says biodiesel creates an outlet for soybean farmers, and cattlemen like him get to enjoy the benefits of it.

Furthermore, Cope points to the current political environment. "It looks like biofuels are going to be more of a factor going forward in both sustainability and emissions reductions," he says. "Farming is a pretty energy-intensive venture, so just having the availability of diesel fuel is so important. I think as we see soy diesel increase in production, that gives us farmers reassurance going forward that the product will be available."

As a cattleman, Riekhof's father-in-law is an avid beef eater. "He believes in eating what butters his bread," Riekhof says. As a soybean farmer, Riekhof looks at using biodiesel the same way. It's about vertical integration. "The more things I use on this farm that started on this



**Garrett Riekhof uses biodiesel on his farm, and continues to be an advocate for the fuel for its benefits both on the farm and to local communities.**

farm, the better my markets are in the end," he says. "It makes us somewhat self-sufficient, like a perpetual machine."

Ask livestock producers if they could do without soybean meal, Riekhof says. "The answer would be 'absolutely not,' as their costs would go up, and that would be passed along to the consumer," he says. "The food vs. fuel argument is not relevant when you understand the true processing of that grain."

### Biodiesel

Biodiesel is much more to Riekhof than creating demand for what he grows, and using the fuel himself. "I see biofuels—ag-produced biofuels—as a sure ticket to boosting rural economies and keeping kids who graduate with college degrees in rural communities," he says. "Then things start to thrive. Plus, local schools, parks departments, they all receive tax dollars from every bushel of soybeans I sell. And, I'm buying tires for my semis in the same community where I haul my soybeans. Now we have skin in the game—an accountability partner for the success of our communities. My roots are here. It's my last name."

Durham says although he personally has not invested in any biodiesel production facilities, his family has. "My dad serves as chairman of a joint-venture biodiesel plant in Kansas City," he says, referring to the Cargill-Paseo plant. "We try to buy biodiesel as often as we can because we think it's important to use products that come off our farm."

Missouri farmers can really take pride in a product like biodiesel, Durham says. "The entire biodiesel industry was pretty much born in Missouri," he says. "And today we are a top biodiesel-producing state."

Biodiesel has a great story to tell, Durham says. Sure, biodiesel added \$266.6 million to Missouri's 230.5 million bushels of soybeans in 2019, providing more than \$1.15 in price support per bushel. And naturally, it helps provide a cheaper supply of protein meal to livestock producers.

But it's also a great fuel with important properties, such as high cetane and much-needed lubricity for today's ultra-low sulfur diesel fuel. The air quality and environmental benefits are increasingly important. "It's not always as glitzy and glamorous as electric vehicles," Durham says. "Even as times

...continued on page 16.

—Glen Cope

**“It looks like biofuels are going to be more of a factor going forward in both sustainability and emissions reductions.”**

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change and new technologies come on board, biodiesel can continue to play a great role in comprehensive fuel policy. Just because it's not the fuel of the moment doesn't mean it's not a good, quality, stable product."

None of this would have been possible, however, without the soy checkoff program funding the research.

### Checkoff

Riekhof views the checkoff program as his farm's allocation to self-promotion. "Most farms don't have promotion budgets," he says. "But the good news about the checkoff is it creates the discipline to donate a little from each bushel to promote ourselves."

He points to the success of biodiesel as a result. "That early, crazy idea just turned out to be something used nationwide, creating billions of dollars in economic opportunity to truck stops, rural communities and farmers," he says. The checkoff, then, is about developing that "next crazy idea so maybe it'll stick."

Although Cope doesn't grow soybeans and therefore doesn't participate in the soy checkoff program, he does benefit from it in various ways. "I gain knowledge from the educational opportunities the checkoff pushes," he says. "As our country and politics transition away from sulfur, those lubricating components are missing, and biodiesel is a way of adding lubricity back into diesel fuel, which is good for our engines. The checkoff continues to fund research that makes biodiesel products better."

Durham says the checkoff has been invaluable to farmers. "Farmers aren't always the best at speaking the good they're doing on a daily basis," he says. "It's not only about biodiesel, but environmental stewardship, raising more food with fewer inputs, using fewer chemicals. So, it's incumbent on the checkoff to give a voice to that. Farmers have an incredible voice. Think of where agriculture was years ago, and the strides we've made on improving farm operations across this nation—and right here in Missouri. We have a great

**“The good news about the checkoff is it creates the discipline to donate a little from each bushel to promote ourselves.”**

-Garrett Riekhof

story to tell, and the checkoff, as the voice of the farmer, needs to be the one that trumpets that.”

### Technology and Stewardship

USDA data show total farm acreage has decreased by 23 million acres since 2007. Meanwhile, biodiesel production has grown from a few hundred million gallons then to nearly 2 billion gallons today. Farmers, therefore, have become more efficient in providing the world with both food and fuel. "In fact, this more efficient use of land may not have been possible without the economic advantage of using excess fats and oils for biodiesel," according to NBB.

A new report, "Climate Change and Missouri Agriculture," released in February, shows just how technology and stewardship go hand-in-hand on Missouri farms. [Learn more on page 24]

"Technology on the farm is creating

more efficiencies," Riekhof says. "In one word, it's about precision. By definition, precision is accuracy, but it's also speed and intelligence. It allows me to more accurately apply fertilizer. What we grow, and how we grow it, is so much more intentional—intentional in and intentional out—and tracking that. It allows us to create more while using less. It sounds cliché, but it is what it is. Who doesn't want that?"

Farmers are the most innovative members of society, according to Durham. "If you look at agriculture 50 years ago vs. now—the technologies that have come along, practices that have waned as new, more sustainable practices are adopted—it's just fantastic," he says. "All farms operate independently, but as a whole the entire industry has moved forward in a sustainable manner. Farmers, whether they articulate it or not, view themselves as stewards of the land. Not

...continued on page 18.

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# HERE'S HOW THE SOY CHECKOFF WORKS

The national soy checkoff was created as part of the 1990 Farm Bill. The federal legislation that created the soy checkoff requires that all soybean farmers pay into the soy checkoff at the first point of purchase. These funds are then used for promotion, research and education at both the state and national level.

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Collected per  
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## CHECKOFF MATH: RETURNING \$12.34/\$1 INVESTED

Source: Cornell University (2019)

\*Led by 13 volunteer soybean farmers, the Missouri Soybean Merchandising Council invests and leverages soy checkoff dollars to MAXIMIZE PROFIT OPPORTUNITIES for all Missouri soybean farmers.

For more information on how your soy checkoff dollars are invested, visit [mosoy.org](http://mosoy.org) or [unitedsoybean.org](http://unitedsoybean.org).

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...continued from page 16.

just themselves, but with an eye toward the future—their kids and grandkids are raised on the farm, as they were. It's important to leave it in better condition than they received it. That's been my philosophy, and my dad's and grandpa's. It's not uncommon across the industry."

Tillage practices have been the greatest changes on Durham's farm. He uses minimum-till techniques. "We're not no-till yet, from a weed-management concern, but that's been the largest change on our farm," he says.

Precision ag technology used by Durham facilitates grid sampling and variable-rate fertilizer maps, which help determine rates of fertilizer applied and seed planted based on different soil types. "You know each individual acre now more than you did once upon a time," Durham says. "It makes the farm as a whole more profitable and sustainable, sometimes just through reduced inputs. If it doesn't make sense to add extra nitrogen, then why put it on?"

The new federal administration and Democratic-controlled Congress are pushing to quickly curb climate change, but Riekhof says agriculture has been heading in that direction for years.

"We have been singing that same song about environmental stewardship this whole time," he says. "While it may not be environmentally responsible to drill a hole and harvest crude oil, and refine and burn petroleum diesel, every year I can harvest soy off those same acres for generations. There is no depletion of that oil supply that I can envision. That is renewable. And it's sustainable. I'm a fifth-generation farmer. That's the definition of sustainability. What do you need? Six, seven or eight generations? If we can produce what we need to fuel our diesels on the crust of the earth and prove that it's sustainable, then we should do it. We've already proven that the exhaust from burning a gallon of biodiesel is healthier for the environment than 100 percent petroleum diesel."



Glen Cope

Farmers are cognizant that they have an important job to do, and they are acutely aware of the need to do more with less, Cope says.

"As livestock farmers, we take marginal lands not conducive to growing crops and convert this into good animal protein to feed the world," he says. "Critics overlook what we do in the livestock industry. We're all in this together. We take our jobs seriously as farmers and ranchers. We do what is needed to be good stewards to the land and take care of consumers. Biodiesel will always have a friend in us, and it's wonderful that we have this partnership." ■



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## Mayer Joins Soybean Association Board

*Mayer fills the district 7 seat previously held by Johnny Hunter of Dexter, as Hunter steps down to focus on his responsibilities in southeastern Missouri after nearly five years of volunteer service.*

Jason Mayer, a farmer and seedsman from Stoddard County, is the newest member of the Missouri Soybean Association board of directors. Mayer fills the district 7 director seat previously held by Johnny Hunter. Hunter resigned the seat in January.

“The board is committed to its mission of supporting Missouri soybean farmers through education and advocacy,” said Missouri Soybean Association president Ronnie Russell. “We’re proud to serve and look forward to having Jason on board.”

Mayer brings more than 16 years of experience in the seed industry, including the past four years with Local Seed Company, LLC. He also farms with his father-in-law, raising cotton, corn, wheat and soybeans. He and his wife, Lauren, reside in Dexter with their two children, Meredith and Jack.

Mayer joined the board of directors in late January, filling the unexpired term of Johnny Hunter III. Hunter was first elected to serve in 2016, and was most recently elected to a three-year term in 2019. In resigning from the Missouri Soybean Association board of directors, Hunter said demands on his time had grown and he was not able to give the district the focus it deserved alongside responsibilities to his family, farm and agribusiness operations. ■



*Johnny Hunter*

# HONOR WALL

*Good news from those working on behalf of Missouri soybean farmers*

## ASA Honors Chen with Pinnacle Award

The American Soybean Association (ASA) recognized Dr. Pengyin Chen, from Sikeston, Missouri, with its Pinnacle Award during an awards ceremony broadcast March 16.

The ASA Pinnacle Award is an industry-wide recognition of individuals who have demonstrated the highest level of contribution and leadership within the soybean family and industry, through work involving a significant amount of their lifetime.

Dr. Chen, a professor in soybean breeding at the University of Missouri Fisher Delta Research Center in Portageville, Missouri, is recognized as a pioneer in the soybean and soy food industries. His life's work has aimed to develop genetics that allow U.S. farmers to capture extra value from higher soybean yield and quality.

Since the mid-1980s in Iowa, Dr. Chen's career in plant breeding and genetics has taken him to Texas, Virginia, Arkansas and Missouri. In the 1990s, Dr. Chen was part of the team that brought the Hutcheson soybean to market, which is known to be an ancestor to nearly 80% of soybean varieties grown in the south.

Throughout his career, Dr. Chen has released more than 30 conventional row crop varieties and food grade varieties. He is the most prolific food grade soybean breeder, having developed the highest protein commercial soybean varieties.

Dr. Chen developed soybeans for tofu, edamame, soymilk, natto bean sprouts, and soy nuts. And at the University of Missouri, he is helping release high oleic soybean varieties.

"Dr. Chen is a trailblazer in soybean research and breeding and his professional accomplishments have benefited soybean growers across the United States," said ASA Vice President Brad Doyle, an Arkansas soybean grower who nominated Dr. Chen for the Pinnacle Award. "His contributions to soybean genetics are a cornerstone to the innovation and progress we see across the industry today."

Outside the lab, Dr. Chen also excels at communicating about soybean genetic advances through field days and meetings with growers, foreign buyers and researchers. He's also written or co-authored more than 225 journal articles.

In addition, Dr. Chen has taught classes in plant breeding and soybean production, helping educate and mentor dozens of students—many now employed by major agriculture companies and universities.

Dr. Chen is an outstanding geneticist known worldwide for his work in plant breeding and soybean genetics—a lifetime of work that has provided significant benefit to farmers and strengthened the U.S. soybean industry. ■



*Dr. Pengyin Chen*



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# MSMC District Director Election Results

**F**our farmers were recently elected to the Missouri Soybean Council board of directors, including new director Darrell Aldrich of Excelsior Springs. As directors, they'll represent growers in their area in overseeing soybean checkoff investments in Missouri as part of the 13-member board.

Kyle Durham of Norborne, Tim Gottman of Monroe City and Kevin Mainord of East Prairie were elected to additional three-year terms on the board serving districts 2, 3 and 7, respectively. The new terms begin in July.

"The strength of the soybean checkoff has been and continues to be in farmer leaders elected by their peers to oversee MSMC's mission," said Missouri Soybean Merchandising Council chairman Kyle Durham of Norborne. "I look forward to working with my fellow farmers as we strive to empower Missouri soybean farmers through innovation."

The board of directors' election process is overseen by the Missouri Department of Agriculture, including accepting nominations and registering soybean farmers to vote, and managing the election itself. All three farmers were elected by acclamation.

Aldrich will fill the seat held by long-time leader Cecil DeMott of Rock Port. DeMott is retiring from the board of directors due to term limits after being first elected to the board in 2009.

Committee assignments for farmers newly elected and continuing their service to the Missouri Soybean Merchandising Council will be determined during the summer board of directors meeting, currently being planned for July.

The Missouri Soybean Merchandising Council is a statewide, farmer-led organization working to improve opportunities for Missouri soybean farmers through a combination of research, outreach, education and market development efforts supported by the soy checkoff. Learn more online at [mosoy.org](http://mosoy.org). ■



*Kyle Durham*

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## New Leadership for Missouri Corn

**T**he Missouri Corn Growers Association (MCGA) and Missouri Corn Merchandising Council (MCMC) board of directors has announced Bradley Schad as the organizations' new chief executive officer.

A native of Versailles, Mo., Schad assumed the role March 15, 2021. He succeeds Gary Marshall, who is retiring after leading the state's corn industry for 34 years. Schad will be responsible for managing the day-to-day and long-range approach of MCMC and MCGA, working in cooperation with board, staff, and industry stakeholders.

Schad started with Missouri Corn in 2008, managing programs focused on ethanol and other market opportunities. He is a 2007 graduate of the University of Missouri, where he received a Bachelor of Science in Agriculture Systems Management and minor in Agricultural Economics.

For additional information, visit [mocorn.org](http://mocorn.org). ■



*Bradley Schad*

# Missouri Soybean Association District Directors Seated

The leadership team for the Missouri Soybean Association welcomes board members beginning new terms this week in conjunction with the annual Commodity Classic conference. The Association welcomes one new director, and congratulates several returning leaders on being re-elected.

“The Missouri Soybean Association is a farmer-led organization with strong grassroots support, and we’re very proud of that foundation,” said Ronnie Russell, Missouri Soybean Association president and a farmer from Richmond. “Our impact grows as we work together, and we appreciate each of these volunteers and their contributions help move us toward the bright future for soy in Missouri.”

Terry Schwoeppe, a farmer from Labadie, was elected to the Association’s board of directors during the District 6 meeting in February. He replaced former Missouri Soybean Association board member Dan Brunjes. Schwoeppe joins his fellow board members in guiding the organization’s policy, advocacy and membership efforts.

In addition to Schwoeppe, five farmer leaders began new terms on the board. C. Brooks Hurst, of Tarkio, was re-elected to represent northwestern Missouri growers in District 1. Cody Brock, of Norborne, Matt Wright of Emden, Garrett Riekhof of Higginsville, and Peter Rost Jr. of New Madrid were elected to new terms representing districts 2, 3, 4 and 7, respectively. Committee assignments for the Missouri Soybean Association directors will be determined during the summer board meetings, currently being planned for July.

The Missouri Soybean Association is currently led by Ronnie Russell. Matt Wright, a soybean farmer from Emden, Mo., serves as vice-president; secretary is Renee Fordyce of Bethany, Mo. and treasurer is Peter Rost Jr. of New Madrid, Mo. Each of those leaders is serving their second one-year term in those roles, the maximum allowed under the Association’s bylaws.

The Missouri Soybean Association is a statewide membership organization working to increase the profitability of Missouri soybean farmers through policy, advocacy and education efforts across the state. To learn more, visit [mosoy.org](https://www.moso.org).

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## National Biodiesel Names New Communications Lead

The National Biodiesel Board has appointed Liz McCune as director of communications. With an in-depth background in strategic communications, McCune is passionate about storytelling and building relationships with industry partners. She will be a key player in the advancement of the biodiesel and renewable diesel industry.

“We are extremely excited to welcome Liz to the NBB team,” NBB CEO Donnell Rehagen said. “Our members will benefit greatly from her extensive communications and journalistic background. She will play a pivotal role in NBB’s efforts to continue to grow the biodiesel and renewable diesel industry and share our vision.”



*Liz McCune*

In this role, McCune will work to craft and share messages on the industry’s plans to move from 3 to 6 billion gallons by 2030, as well as promote the National Biodiesel Board and the members it serves. She is responsible for the development of communication strategies for the team and plans to support the industry through content enhancing the Better, Cleaner, Now message.

McCune comes to NBB from the University of Missouri, where she served as associate director of media relations. McCune, a Missouri native, holds a bachelor’s degree in journalism from Mizzou and completed the Administrative Leadership Development Program at the UM System in 2018.

For more about biodiesel, visit [biodiesel.org](https://www.biodiesel.org).

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*- Christine Tew*



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**Gary Wheeler**  
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**Christine Tew**  
Director of Communications



# Missouri Farmers and Climate Change

*A new report requested by soybean farmers shows greenhouse gas emissions are down and sequestered carbon is up on Missouri farms.*

*By Darrick Steen  
and Christine Tew*

A new report identifies the incredible impact from Missouri farmers' efforts around soil conservation and climate change. In Missouri, investments into conservation practices over the past 30 years have translated into annual greenhouse gas emission reductions of more than 2.8 million tons of CO<sub>2</sub>e - equal to roughly 640,000 passenger cars. That's more than 25 percent of the total passenger cars registered in Missouri and the equivalent of 6.3 billion road miles. In that same time, Missouri's average soybean yield grew by roughly 66 percent.

"Stewardship is an integral part of the long-term success for Missouri farms and farm families, and investing in land and water resources is foundational to that success," said Ronnie Russell, a northwestern Missouri farmer and president of the Missouri Soybean Association. "It's inspiring to see the impact farmers' investments have had and continue to have on conserving soil, capturing carbon, and reducing emissions from farm fields. The trajectory we're on in agriculture, continuously producing more with less, sets us up well to continue to be a leader in the wise use of our natural resources for generations to come."

The report, *Climate Change and Missouri Agriculture*, was prepared by Ray Massey and Cammy Willett from the University of Missouri's Division of Applied Social Sciences. The report identified specific practices' contributions, as well as broad areas in which farmers are making positive contributions toward reducing overall greenhouse gas emissions, raising crop productivity without corresponding growth in emissions, and increasing on-farm carbon sequestration.

In addition to dramatically reducing greenhouse gas emissions without sacrificing production, farmers'



*Ronnie Russell*

*“The trajectory we’re on in agriculture, continuously producing more with less, sets us up well to continue to be a leader in the wise use of our natural resources for generations to come.”*

-Ronnie Russell

efforts have also helped keep soil in the field. Soil savings from on-farm practices like no-till and conservation tillage in Missouri have prevented erosion of 177 million tons of soil, equal to enough tandem axle dump truck loads of soil to circle Earth more than three times.

“The EPA says agriculture is responsible for about 10 percent of all greenhouse gas emissions – behind transportation, generating electricity, industry and the emissions from businesses and homes,” Russell said. “Not only are we moving the right direction with expanding the use of cover crops and no-till across the state, we’re working to grow Missouri’s use of biodiesel on and off the farm and continuing to extend the positive impact.”

Broad areas the report identifies in which farmers are making contributions:

- Improving crop production efficiency and yields, including through fewer inputs and trips across the field
- Expanding practices that have reduced nitrous oxide (N<sub>2</sub>O) soil emissions. Those practices include

improved nitrogen management, soil health and conservation, and prioritizing nitrogen-fixing soybeans in their crop rotation.

- Introducing farm practices proven to sequester carbon and practices to keep that carbon in the soil, removing carbon dioxide (CO<sub>2</sub>) from the atmosphere and storing it in the soil as elemental (C) carbon.

The Missouri Soybean Association requested the report last year to assess the impact farmers’ investments in research, soil health and conservation practices have had on key indicators of climate change.

“Farmers are the original stewards of the land, and we’re very proud of that, but it goes beyond being proud,” Russell said. “It’s important to know exactly where we stand, and that’s why we asked the researchers at the University of Missouri to help put a number on the impact.”

The Association’s board of directors reviewed the report during their January meeting.

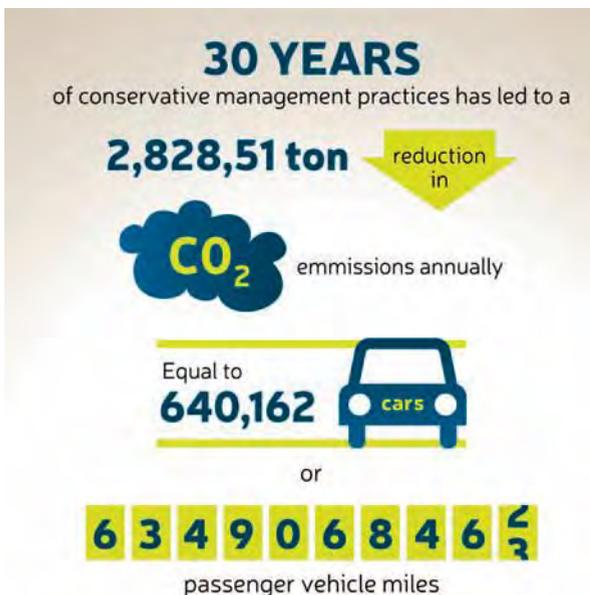
In addition to measures identified in the report, Missouri soybean farmers are also widely recognized for their contributions through biodiesel.

Soybeans are the basis for Missouri’s production of more than 200 million gallons of biodiesel per year. Each gallon of biodiesel emits 86 percent fewer lifecycle greenhouse gases, creates 47 percent less particulate matter, and reduces hydrocarbon emissions by 67 percent compared to a gallon of conventional ultra-low-sulfur diesel fuel.

Farmers are also investing to further improve crop production, carbon sequestration and overall efficiency through the soy checkoff and the Missouri Soybean Association.

“There’s always more research to be done, and we’re going to keep looking at ways we can improve and extend this impact,” Russell said.

To learn more about soybean research, review the Climate Change and Missouri Agriculture report, visit [mosoy.org](http://mosoy.org).





# Carbon Markets, Credits & Trading

*As investments in soil health continue, Missouri welcomes a pilot project to evaluate innovation and market opportunities around soil carbon.*

By Darrick Steen

Soil health research and education have been an important checkoff investment area for the Missouri Soybean Merchandising Council for many years. That research has led to new grower insights and recommendations for using cover crops, as well as other management practices to further soybean production and conservation goals. More recent developments around the emerging field of agricultural carbon markets are raising questions, and driving new interest and optimism about income opportunities from growers' soil health investments.

Over the past year, private and non-profit companies of various sizes and types have been busy developing and announcing new sustainability programs, many of which include some form of market-based approach to the selling or trading of agriculture carbon credits.

Questions remain at this early stage, including how different carbon market programs are being developed, how and why they operate, as well as the market drivers behind them. These are all questions that have been front of mind for the Missouri Soybean Merchandising Council.

*“The idea of stacking multiple ecosystem credits, including soil carbon and greenhouse gas, as well as water quality and quantity, makes ESMC a unique and attractive option for farmers.”*

-Darrick Steen

## Ecosystem Services Market Consortium

To help answer some of these questions, in 2020, the Missouri Soybean Merchandising Council became a member of Ecosystem Services Market Consortium (ESMC). ESMC is a non-profit organization that will likely be the largest credit exchange platform company in the U.S. when it launches commercially in 2022. ESMC is developing a farmer focused, science and outcomes focused ecosystem trading platform that is practice agnostic. Being “practice agnostic” means producers can make decisions that are best suited for their specific operation, giving them flexibility and freedom to operate.

ESMC prides itself as a company focused first and foremost on farmers and ranchers. ESMC is developing its marketplace to encourage sustainable agricultural production systems while creating sound social, economic and environmental outcomes that benefit producers, local communities and society at large.

The tradeable “ecosystem outcomes” for ESMC will include not just soil carbon and greenhouse gas, but also water quality and water quantity. These ecosystem outcomes will be quantified and converted into credits at the field scale simultaneously. The credits generated can be stacked to streamline and consolidate the trading process.

The idea of stacking multiple ecosystem credits, including soil carbon and greenhouse gas, as well as water quality and quantity, makes ESMC a unique and attractive option for farmers. ESMC is also exploring other marketable ecosystem service areas, like biodiversity, which could quantify the wildlife and habitat value that conservation practices often provide.

## Missouri's New Carbon Pilot

Last year, the Missouri Soybean Merchandising Council set a goal to further evaluate and understand the potential economic and conservation value that voluntary private carbon and ecosystem credit markets may provide to Missouri farmers. We also wanted to position Missouri Soybean to be a strong contributor to the development of market protocols, as well as market policy and procedures to ensure markets were practical for on-farm use and would ultimately meet grower needs. The direction aligns with the Merchandising Council's strategic plan to prioritize checkoff investments toward research and sustainability – supporting farmers' freedom to operate and future economic opportunities.

To bring this to fruition, MSMC partnered with the Missouri Corn Merchandising Council and ESMC to launch a Missouri-focused pilot of ESMC's ecosystem credit market program. Through the pilot, participating farmers will have the opportunity to test new innovations in quantifying carbon and water quality benefits while providing input to guide ESMC's program development.

After the target number of piloted acres are enrolled, MSMC will work with ESMC to quantify and certify carbon and water quality credits on the enrolled acres resulting from eligible conservation practices. Once credits are certified, ESMC will make those credits available for purchase to interested buyers.

Missouri Soybean and Missouri Corn also invited MFA Incorporated, into the pilot as a partner. The three organizations share a common commitment to Missouri farmers' success and profitability, and to agricultural conservation. MFA



Darrick Steen

Incorporated's statewide network of field staff and precision agronomy services will help fill a key role and help ensure success in meeting pilot goals.

The Missouri pilot is one of more than 10 ESMC is launching in 2021 to test and further refine its program aspects prior to full market launch in 2022. The pilots test ESMC's processes for credit generation and sales and ensure all other program aspects are operational and will meet grower (supplier) and buyer needs. In addition, ESMC and its members are dedicating a significant amount of time and research into its market protocols and standards prior to ESMC's full market launch. These protocols and standards will define how ecosystem credits are quantified, verified and certified. This robust research and science-based effort is critical to ensuring that credits ultimately stand up to industry scrutiny and hold value for buyers.

## Tapping the Potential of Soil Carbon

As we move into this new soil carbon era, it's important to recognize that our soils already contain massive quantities of stored carbon, but the potential is there for more. Farmland has the capacity to store or sequester immense amounts of carbon directly from the

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atmosphere. Management practices that enhance soil health are also converting and sequestering atmospheric carbon into soil carbon. More importantly, with the right nutrient and soil health management practices, growers can also help keep newly sequestered carbon in the soil. With the right systems and practices in place, during each planting season farmers can reduce their carbon emissions, they can enhance the uptake of carbon, and retain it there for years, even many decades after each harvest.

Increasing soil carbon has the potential to provide many valuable grower benefits, including environmental, production and economic. Increasing carbon in soils will absorb and store a larger proportion of rainfall, reduce runoff and erosion, and lead to improved water quality. With more

*“Being ‘practice agnostic’ means producers can make decisions that are best suited for their specific operation, giving them flexibility and freedom to operate.”*

-Darrick Steen

moisture in our soils, yields can become more consistent and predictable; and farms may increase their resiliency to droughts and floods. With a long-term outlook, soil carbon sequestration can also help meet societal goals around reducing emissions of greenhouse gases.

The technology and the practices employed by farmers today already put farmers on a strong trajectory toward reducing their own agricultural greenhouse gas emissions by significant

quantities, perhaps by as much as 50 percent. Agriculture is the one sector in society that has the ability to transform from a net emitter of carbon dioxide to a net sequesterer of it, and there is likely no other sector in the economy with this sort of potential.

To learn more about the pilot, visit [mocarbonspilot.com](http://mocarbonspilot.com). Want to know more about other programs from the Missouri Soybean Merchandising Council and soy checkoff? Explore [mosoy.org](http://mosoy.org).



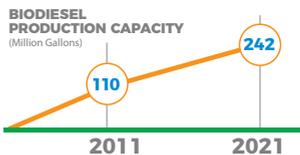

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**187**  
retailers selling B2 - B5



### Missouri's BIODIESEL LEADERSHIP

**10%** Missouri's 242 million gallon/year capacity represents roughly 10 percent of total U.S. biodiesel production capacity.

**#3** Third highest biodiesel production capacity of any state in U.S.

**#2** Ranks second in biodiesel production.

### Economic Indicators

#### Missouri's BIODIESEL USAGE



**2018**      **2019**

- \$266.6M**  Value added to Missouri's 230.5 million soybean bushels in 2019
- 3,268**  Jobs supported by biodiesel
- \$191.5M**  Household income supported by biodiesel
- \$329.7M**  Value to Missouri's GDP
- \$1.25B**  Total economic activity supported by biodiesel

**ABOUT BIODIESEL AND RENEWABLE DIESEL**

-  Made from plant-based oils, used cooking oils, and animal fats
-  Clean-burning
-  Can be used in any diesel engine without modification
-  Commercially available nationwide
-  Today's solution for heavy-duty trucking, emergency vehicles, bus fleets, and farm equipment

**nb** [nbb.org](http://nbb.org)  
[biodiesel.org](http://biodiesel.org)  
Materials sponsored by soybean farmers and their checkoff.

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**800-841-5849**

**DC** 1331 Pennsylvania Ave., NW | Suite 505  
Washington, DC 20004  
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**CA** 1415 L Street | Suite 460  
Sacramento, CA 95814  
**916-760-8870**



# New Rules for 2021 Soybean Yield Contest

**M**issouri farmers have consistently brought big yields on soybeans in the annual yield contest, combining innovation and expertise throughout the growing season that pays off at harvest. For the 2021 Soybean Yield Contest, the Missouri Soybean Association has made two changes to the rules to reflect the adoption of on-farm practices across the state:

1) New Category for District Competition – Cover Crop

To qualify for this new category, soybean must be planted without tillage into a cover crop. There is no restriction on the type of cover crop used or on the termination timing of the cover crop. Irrigation is not allowed for this category. The Cover Crop category will be added to the existing District categories of No-tillage (dryland) and Tilled (dryland). There will be a winner selected from every district in each of the three categories.

2) Recheck Yield Moved to 90 bu/acre

For many years a recheck has been required at 75 bu/acre. With yields continuing to climb it is appropriate to raise that to 90 bu/acre. Weigh wagons may be used for yields up to 90 bushels per acre. Any contest yield in excess of 90 bu/acre must be rechecked and the recheck results will be the official contest yield. State-certified scales and moisture testers must be used for measuring and weighing processes for recheck yields in excess of 90 bushels per acre. On-farm scales may be used if they are state certified.

The higher recheck requirement is in keeping with the ever-increasing yields. Missouri's statewide average soybean yield was nearly 50 bu/ac in 2020.

The contest will continue to include district-level competition, recognizing winners in the tilled, no-till and cover crop categories. Top state-wide winners will be recognized for dryland and irrigated production. Entries topping 100 bu/ac will continue to receive special recognition in the 2021 contest.

Entries must be from fields 10 acres or larger in size and located within Missouri, and all participants must be at least 18 years of age. Each entry must be submitted on a separate entry form. All contest entries must use soybean varieties available in the marketplace for Missouri. No experimental or research line(s) are eligible for Missouri's soybean yield contest.

Prizes will be awarded during the Missouri Soybean Association's district meetings and annual meeting in early 2022. Winners will also be recognized online and in Missouri Soybean Farmer magazine.

Entry forms, rules and prize details are available on [mosoy.org](http://mosoy.org), or growers may request copies by calling the Missouri Soybean office at (573) 635-3819. ■





## Upcoming Events

April 10 *The Farmers' Table Wine Trail Event - Hermann*

July 15 *Missouri Soybean Association Golf Tournament benefiting SOYPAC - Shirkey Golf Course, Richmond*

August 6 *Missouri Soybean Association Golf Tournament benefiting SOYPAC - Hidden Trails Country Club, Dexter*

## Want More?

Visit us at [mosoy.org](http://mosoy.org)!

"Like" us on Facebook and follow us on Twitter and Instagram.



## Applications Open for Missouri Century Farms

If your farm has been in your family since Dec. 31, 1921, you can apply to have it recognized as a Missouri Century Farm. To qualify, the same family must have owned the farm for 100 consecutive years. The line of ownership from the original settler or buyer may be through children, grandchildren, siblings, and nephews or nieces, including through marriage or adoption. The farm must be at least 40 acres of the original land acquisition and make a financial contribution to the overall farm income.

"Family farms have been among our most vital partners since the founding of extension more than 100 years ago," said MU Vice Chancellor for Extension and Engagement Marshall Stewart. "The Century Farm program is one way we express our gratitude to those who have contributed so much to Missouri agriculture."

Since the program began in 1976, more than 8,000 Missouri farms have received the Century Farm designation.

A \$120 fee covers the cost of a certificate, farm sign and booklet for approved applicants. County MU Extension centers present these items. University of Missouri Extension, the MU College of Agriculture, Food and Natural Resources, and Missouri Farm Bureau sponsor the program.

Details and online application are at [extension.missouri.edu/centuryfarm](http://extension.missouri.edu/centuryfarm). The deadline is May 1. ■

# Soy Reads

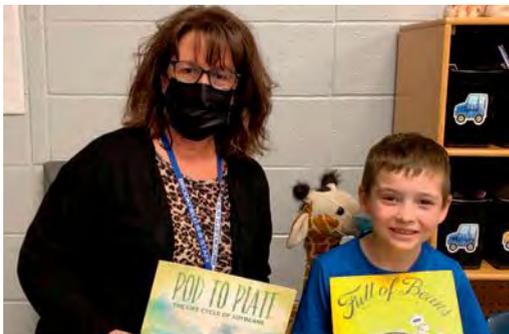
From National FFA Week service projects, to Missouri Read-In Day and National Ag Week, literacy has been front-and-center for the Missouri Soybean Merchandising Council and soy checkoff to start 2021. While many in-person events continue to be postponed, creativity from teachers, FFA members and advisors, and the Missouri Soybean family kept education programs rolling.

Just how far have those education programs reached this year?

- Educators participating in the Ag Education on the Move program through Missouri Farmers Care received 144 copies of the book *Full of Beans: Henry Ford Grows a Car* to share with students in January.
- More than 9,000 Simon the Soybean Activity Books went to FFA chapters and 3rd grade classrooms in time for Food for America programs during National FFA Week in February.
- In March, soybean farmers and Missouri Soybean staff donated more than 75 copies of *Full of Beans: Henry Ford Grows a Car* and *Pod to Plate: The Life Cycle of Soybeans* to classrooms and school libraries across Missouri.
  - More than 15 of the people donating those books also had the opportunity to read to students, whether in-person or virtually, and answer their questions about soybeans.

Want to learn more or get a book for the young reader in your life? Visit [mosoy.org](http://mosoy.org) and click on Learn About Soybeans to check out printable activity sheets, coloring pages and other educational downloads, as well as to contact the Missouri Soybean team about books for your classroom.

Special thanks to Illinois Soybean for sharing *Pod to Plate: The Life Cycle of Soybeans* for distribution in Missouri this year. ■



See More  
and get a book

at [mosoy.org](http://mosoy.org)

*This program is made possible by Missouri soybean farmers and their checkoff.*



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