Soybean Farmer FEBRUARY 2021 Sustainability in Action Missouri's Leopold Conservation Award winners are looking at long-term health. Missouri-Made Fuel Biodiesel is big for Missouri, and the future of the industry is a top priority for your Association this year.





2020 - 2021 North Enlist™ Ahead Farmer Rewards



Use a complete herbicide program approach with multiple sites of action for sustainable weed control with the Enlist system!

Grower Eligibility Criteria:

Purchase products between October 1, 2020 - September 30, 2021, for use on Enlist E3® soybean acres

- Enlist® Duo and Enlist® One herbicides for burndown, preemergence, and post-emergence use
- Enlist herbicides are the only 2,4-D containing products labeled for use with Enlist crops
- Purchase one or more eligible
 Corteva Agriscience residual herbicides,
 earn on acres matched with Enlist herbicide

Earn your rewards

 As Corteva[™] Cash is available for use in purchasing Corteva Agriscience[™] crop protection products from your local retailer for next season.

Plant Enlist E3®

soybeans

Earn on every acre!	Stack multiple sites of action - earn on each qualifying matched product!				
Enlist herbicides	Qualifying soybean herbicide				
Enlist One® COLEX-D* technology	DuPont™ Afforia® herbicide DuPont™ Canopy® DF	DuPont™ Enlite ® herbicide DuPont™ Envive ®	Sonic® herbicide Surveil®		
OR	herbicide	herbicide	herbicide		
Enlist Duo® COLEX-D® technology	Elevore ® herbicide	DuPont [™] EverpreX ® herbicide	Trivence ® herbicide		
\$0.50/acre	\$1/acre				

Please refer to the label and consult local product representatives for recommendations in your area. Program may be updated with additional participating products at the discretion of Corteva Agriscience.

Start clean with tillage or burndown

HERBICIDE

Elevore®

Arylex[™]active

Enlist* herbicides (no plantback restriction for Enlist E3® soybeans)

Visit www.Enlist.com

for minimum terms and conditions.

Apply soil residual herbicide

On every acre of Enlist

herbicides purchased

HERBICIDE

Afforia® Enlite®

Envive[®]
Sonic[®]

Surveil®

Trivence®

Apply Enlist™ herbicides

No later than R2 or full flowering stage

Up to two applications can be made post-emergence, at least 12 days apart

When acres of each qualifying soybean herbicide

are matched with Enlist herbicide acres

HERBICIDE

Enlist Duo®

Enlist One®

EverpreX®

Durango® DMA®

Apply Liberty® herbicide No later than R1 or beginning bloo





INSIDE THIS ISSUE OF

Staff Contacts

Executive Director / CEO Gary Wheeler gwheeler@mosoy.org

Chief Financial Officer Kim Hill khill@mosoy.org

Director of Communications Christine Tew ctew@mosoy.org

Director of Policy Casey Wasser cwasser@mosoy.org

Director of Business Development & **New Markets** Tony Stafford tstafford@mosoy.org

Director of Biofuels & New Uses Matt Amick mamick@mosoy.org

Director of Research Greg Luce gluce@mosoy.org

Director of Licensing Bryan Stobaugh bstobaugh@mosoy.org

Director of Environmental Programs Darrick Steen dsteen@mosoy.org

Director of Compliance & Research Administration Ebby Neuner eneuner@mosoy.org

Office Manager Mary Kever mkever@mosov.ora

Accounting Manager Jeff Bruemmer jbruemmer@mosoy.org

Conservation Programs Manager Clayton Light clight@mosoy.org

External Relations Liaison Baylee Siegel bsiegel@mosoy.org

Executive Assistant Amber Meyer ameyer@mosoy.org

ybean Farmer

FEBRUARY 2021 | VOLUME 25 | ISSUE 1



6 January marked the start of a new legislative season in Missouri, as newly-elected senators and representatives moved into the Capitol.



18 Gary Marshall has served Missouri farmers for nearly 50 years, learning a lot about using partnerships to meet big goals along the way.



20 For Missouri's 2020 Leopold Conservation Award winners, sustainability is about the next generation.



« Cover Shot

Jason Jenkins captured this view of the Yoders' farm from above while preparing the article on page 20.



Missouri Sovbean Association

734 S. Country Club Drive Jefferson City, MO 65109 | Phone: (573) 635-3819 | www.mosoy.org

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 for advertising information.

Copyright Missouri Soybean Association, 2021. All rights reserved. Reproduction or use of any content without the express written permission of the publisher is prohibited.



From The Field

Notes from Missouri Soybeans' leadership team

MSA Board Members:

Cody Brock, Norborne Dan Brunjes, Labadie Dane Diehl, Butler Renee Fordyce, Bethany John Hunter, Dexter C. Brooks Hurst, Tarkio Andrew Lance, Barnard Matt McCrate, Cape Girardeau Tom Raffety, Wyatt Garrett Riekhof, Higginsville Peter Rost Jr., New Madrid Ronnie Russell, Richmond Kate Lambert, Laclede Bruce Wilson, Mexico Matt Wright, Emden Russell Wolf, Tipton

MSMC Board Members:

Robert Alpers, Prairie Home
Kevin Mainord, East Prairie
Cecil DeMott, Rock Port
Kyle Durham, Norborne
Denny Mertz, Chesterfield
Tim Gottman, Monroe City
John Kelley, Faucett
Mark Lehenbauer, Palmyra
Bob Littleton, Dalton
Tim Lichte, Lexington
Baughn Merideth, Caruthersville
Aaron Porter, Dexter
Justin Rone, Portageville

USB Board Members:

Neal Bredehoeft, Alma Pat Hobbs, Dudley Meagan Kaiser, Bowling Green Lewis Rone, Portageville

ASA Board Members:

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



he number one priority for the Missouri Soybean Association this year is moving biodiesel into the next phase of growth in Missouri, securing the benefits to drivers, our rural communities and state economy, and our air quality well into the future. Thirty years ago, Missouri's soybean farmers invested in a research project to add value to soybean oil that became the bedrock of the industry we know today. And today, that industry supports 3,200 Missouri jobs and contributes more than \$1.7 billion to our state's economy.

Moving biodiesel forward means creating space for our Missouri-made fuel alongside petroleum. Biodiesel is a drop-in replacement for ultra low sulfur diesel and already approved by the major engine manufacturers, yet we continue to hear producers' challenges with getting biodiesel blends from their retailers – often because terminal space is monopolized by out-of-state petroleum.

There's too much at stake for us to let the biodiesel infrastructure, demand and impact we've built here in Missouri to fall by the wayside as neighboring states invest in their own production and distribution. We'd also be shooting ourselves in the foot if we gave up the lower soybean meal costs for livestock producers thanks to additional bean meal in the market – a benefit regardless of the price of soybeans. Missouri led the way 30 years ago, and it is our top priority to be at the forefront of this next phase of growing biodiesel – The Missouri-Made Fuel.

There's more information throughout this issue on biodiesel, and I hope you'll join your Missouri Soybean Association team as we advocate for the future of Missouri-made fuel this legislative session.

Ronnie Russell - Missouri Soybean Association President

certainly don't think it's uncommon to ask ourselves, "Who can I trust?" It's been said that transparency is the currency of trust. As a farmer, trust is earned by any of our would-be partners only if I feel they are forthright and honest with me.

Transparency is key to what we do as farmers, and as your representatives on the MSMC board. There is growing interest in what goes into producing our crops, how we steward our land, and what security we can assure our buyers. In this issue, you'll see Joshlin and Addie Yoder, 2020 Leopold Conservation Award winners. Not only do the Yoders "walk the walk" of soil



conservation, but they proactively share their story with ag and non-ag audiences alike.

As your elected checkoff board, our charge is no different. Transparency is one of our core values, from our Annual Research Report featured in the last issue to the MSMC financials we've published for your information in this issue. We hope these demonstrate our commitment to serving you and our commitment to being fully transparent with you, our fellow farmers.

As you read this, it's possible you have a district winter meeting coming up, and I hope you'll participate and share what's on your mind.

Kyle Durham - Missouri Soybean Merchandising Council Chairman

Letter from the Executive Director

inter is meeting season. Except this year, it's not. It might be Zoom season, or WebEx, Google, Skype, Teams or whichever other virtual meeting software we're using today. But it's definitely not the winter meeting season we've typically had as a distraction from short days and winter chores in the days between duck season and spring.

I didn't realize just how much I'd miss those winter gatherings until, one by one, they became links instead of destinations.

Missing winter meetings, from a farm shop fish fry to local Extension sessions, even our own district soybean meetings and events like Commodity Classic, leaves a gap. It means we miss out on those hallway

conversations, the quick question that opens the door to active problemsolving, and the stories that lift us all a little higher. We miss out on seeing how big the kids have gotten, and hearing about changes at the local elevator, implement dealer and seed shed.



Celebrating with the American Soybean Association and farmers from across the U.S. at the SOYPAC benefit auction during the 2020 Commodity Classic

Nearly a year into this, and it's impossible to ignore the lesson in all that. Delivering for the farmer is at the heart of why I love this job, the team around me and working for each of you. And it's hard to serve, and even harder to deliver for you, when we don't know what you're wrestling with on a daily basis. COVID-19 has shown us many things, and right now it's weighing on my mind that it's shown us how much our communication relied on being in the same place.

There have certainly been many lessons during the past year, and chief among them is the importance of and need to reach out, to drive connections and conversations. We've seen firsthand this year, as your Association, Merchandising Council and Foundation, how important face-to-face is, and what it means to deliver without that – to have the impact you've come to expect from your Missouri Soybean team.

I hope you'll join me in taking this lesson as an opportunity and a challenge. When we can't be together and can't have the easy connection, don't make that a reason not to share. Pick up the phone, send the e-mail, click the link - and let us know what's going on, what you're seeing and hearing.

Your Missouri Soybean team is here to serve, and we need to hear from you to deliver. And while I'd much rather be there to shake your hand, I'm looking forward to Zooming with you during district soybean meetings these next few weeks (details on those on page 30).

God Bless.

Gary Wheeler

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

M.ULL





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

or the first time in almost three years, we have all statewide offices filled with elected candidates. Last fall, as we headed into the elections, four of our six statewide offices were held by appointees due to vacancies – a rare case to say the least.

Looking forward, we are in a positive situation statewide, with strong relationships with farmers Governor Mike Parson and Lt. Governor Mike Kehoe and many others in the Capitol. The makeup of the Missouri General Assembly looks unchanged with Republicans holding super majorities in both chambers. As a result of the recent Georgia runoff elections, the Democratic party holds the Presidency and U.S. House of Representatives. With the Senate being split 50-50, Vice-President Kamala Harris will be the deciding vote on issues that come down to party lines.

For the past four years, we've seen a more business-friendly regulatory environment that enabled changes to key polices such as Waters of the U.S., registration of key crop-protection products and compliance with farm programs. With the new administration, we anticipate a shift back to a regulatory environment more reminiscent of what we saw under President Obama prior to 2017. Frankly speaking, the federal policy outlook shows the potential for rather dramatic policy movement, perhaps even swings, in 2021, particularly in areas that impact energy and the environment. Addressing climate change and reducing carbon

emissions are a stated top priority of the Biden administration, as well as the Democratic party. This single policy area has the potential for far-reaching impacts in many, if not most, sectors of the economy - most certainly agriculture. Changes to climate and carbon policies will impact operations areas we generally take for granted on the farm, from the source of our electricity to the fuel that runs our machinery, trucks and cars. It will impact federal investment in transportation infrastructure, as well as impact farm inputs like fertilizer, pesticides and other inputs. We also anticipate climate and carbon policy to come up during future Farm Bill and commodity program negotiations, something that can ultimately impact how we manage and use our farmland. I'm not suggesting these changes will all be negative, and we will work to ensure the energy you produce on your farm is not overlooked. Certainly the times, as Bob Dylan said, "The Times They Are A Changin'."

In addition to carbon, we also anticipate a more aggressive federal approach toward water quality protection and/or improvement, as well as more heavyhanded compliance and enforcement on concentrated animal feeding operations. The interplay of the U.S. Endangered Species Act into federal decision-making including, for example, the Environmental Protection Agency's (EPA) re-registration of common pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is an area to pay close attention to, as well. Many widely used agriculture herbicides and insecticides already face tough re-registration challenges as they work through a new ESA review process. President Biden's EPA and U.S. Fish and Wildlife Service appointees will hold considerable influence on the outcome of these reviews and the fate of those products.

Perhaps on a more promising front, many solid agricultural proponents were elected to the Missouri General Assembly. That bodes well for the Missouri Soybean Association's



Missouri Soybeans' executive director and CEO Gary Wheeler and Missouri Soybean Association president Ronnie Russell were on hand for inaugural celebrations at the Capitol in January.

(MSA) proactive legislative agenda. Unfortunately, we anticipate the COVID-19 virus will disrupt typical access and consideration for legislation in the Missouri legislature, and passing legislation is always more difficult than stopping it. We're anticipating hearings will be available online, and that testimony may be able to be given virtually. In any event, MSA will be physically present to continue representing your interests every day in Jefferson City.

Our top legislative effort for the 2021 regular session is increasing biodiesel consumption in Missouri. Missouri's biodiesel plants are co-located crush and biodiesel facilities that add value to row crops while supplying more meal to our livestock producers. They provide good paying jobs and local tax revenue. The value biodiesel plants add to our

economy cannot go un-advocated while out-of-state producers are receiving preferential treatment. Senate Bill 96, introduced by Sen. Denny Hoskins and House Bill 529, introduced by Rep. Mike Haffner, create the Missouri Made Fuels Act. Simply put, that act would require all diesel sold in Missouri to include a percentage of biodiesel. In addition, Senate Bill 344, filed by Sen. Justin Brown, and House Bill 694, filed by Rep. Rick Francis, provide an incentive to retailers to blend biodiesel. The incentive comes through a reduction in fuel taxes on blends of biodiesel that only occurs when the overall fuel tax is increased, so as to not reduce resources MoDOT currently receives.

Beyond the work to grow the market for biodiesel, we are supporting the efforts to renew several tax credit programs for the Missouri Agricultural and

...continued on next page.

...continued from previous page.

Small Business Development Authority (MASBDA). These include three credits: the New Generation Cooperative Incentive Tax Credit Program, Agricultural Product Utilization Contributor Tax Credit Program and the Meat Processing Facility Investment Tax Credit Program. MASBDA has authority to issue up to \$8.3 million in tax credits annually. Since 2000, MASBDA has had an estimated direct and indirect benefit to Missouri totaling \$247 million. The new generation program was a big factor to the start of Missouri's biodiesel industry, and most recently, we've seen the need for important programs like the meat processor credit. If these credits are not renewed, rural Missouri will undoubtedly lose out on investment and job creation.

Finally, the Missouri Department of Agriculture is seeking a legislative proposal to update the state certification requirements necessary for application of certain pesticides. These new requirements, mandated by the EPA in the form of new competency standards, place an increased administrative burden on the state and an increased training and education burden on our producers. The legislation will allow for a "training" fee to be charged to our producers so that the administering agency can implement a new certification process and training program. Aside from a new fee, the direct impact this legislation will have on Missouri producers who possess or need a Private Applicator License comes in several forms. First, it's going to take up more of your time to become certified and to become recertified. There are several new pesticide safety-related "training topics" MDA must cover with producers in the training program to meet federal requirements. Second, anyone on the farm that handles or applies a restricted use pesticide will be required to have a private applicator

license. This means farmhands and employees (who previously did not need a license because they were supervised by someone who did) may now need to go through the training program and become licensed. Your soybean association is working hard to include flexible options in the legislation for producers to complete the training, including an online training option that could be completed at home. Furthermore, we are advocating for a farmer-led panel/board to set the fee the state may charge and update it - perhaps every five years.

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 for details.

Legal Notice to Missouri Soybean Producers

An election will be held to elect four (4) soybean producers to the 13 member Missouri Soybean Merchandising Council, which manages the funds collected through the soybean checkoff program. The terms of office will be for three (3) years and the election will be as follows: four (4) members are to be elected; one (1) each from Districts 1, 2, 3 and 7. (See Map) Ballots will be mailed by the Missouri Department of Agriculture on March 5, 2021, to each registered producer in the four (4) Districts. Ballots must be returned to the Missouri Department of Agriculture in Jefferson City, by mail, postmarked no later than April 2, 2021.

Any duly registered commercial producer of soybeans is eligible to vote for the Council candidates from his/her District. Producers must be registered to vote. Current registered producers whose address has changed in the last five (5) years should re-register or contact the Missouri Department of Agriculture at (573) 751-5019 or P.O. Box 630, Jefferson City, MO 65102 by February 3, 2021, to receive a ballot. Non-registered producers must register prior to February 3, 2021, at the USDA County FSA Office or online at agriculture.mo.gov/councils to receive a ballot for this election.



Any qualified producer may be nominated and have his/her name placed on the ballot, provided he/she presents the Director of the Missouri Department of Agriculture a nominating petition signed by at least 100 soybean producers prior to February 3, 2021. Such petitions are available at the Missouri Department of Agriculture in Jefferson City, Mo. Please direct any questions to Missouri Department of Agriculture, P.O. Box 630, Jefferson City, MO 65102, or (573) 751-5019.

For more information, visit mosoy.org or call (573) 635-3819.



made possible by Missouri soybean farmers and their checkoff





Run with the oil too proud to quit before the job is done.

Pouring the latest technology, advanced additives and 90-plus years of expertise into every quart, Work Horse® begins by exceeding original equipment specs. We follow up with unrivaled customer support in testing and maintenance. The result: A new breed of oil powered by the same work ethic that pushes you.



On Sale March 1 - April 30





Biodiesel: Growing Together

Planted and nurtured by the vision, leadership and commitment of soybean farmers in Missouri and across this nation, a modest investment in SoyDiesel research from the Missouri Soybean Merchandising Council in 1991 sowed the seeds for what would eventually become the successful U.S. biodiesel industry seen today.

By Ron Kotrba

RonKo Media Productions

Then and how the U.S. biodiesel industry would have developed, or if it would have developed at all, would be fair questions to ponder were it not for the early support of Missouri soybean farmers. But by all historical accounts, the credit goes to these forward-thinking innovators.

"The story of U.S. biodiesel is a story of soybean farmers," says Tom Verry, director of outreach and development for the National Biodiesel Board. "It was their vision, leadership and commitment that made it all happen. And it started with the Missouri Soybean Merchandising Council."

This year marks the 30th anniversary of MSMC's modest yet progressive \$22,000 investment helping blaze a trail for the multibillion-gallon commercial industry that exists today. The money was to fund a one-year project testing the efficacy of 100 percent SoyDiesel in a pickup truck.

"One thing MSMC and the American Soybean Association wanted me to do when I stepped into this opportunity was spend time visiting colleagues in Germany and Austria who'd been working with rapeseed oil biodiesel for some time," says Leon Schumacher, a University of Missouri professor. Schumacher's early work in the emerging field of SoyDiesel was instrumental and included demonstration tests, participation in key meetings, and investigating what added value even small amounts of SoyDiesel could bring to petroleum diesel fuel.

"A lot of demo activity was needed," he says. Schumacher drove the SoyDiesel-powered University of Missouri Ag Engineering truck to numerous fairs and farm shows, demonstrating the new fuel.

Dr. Leon Schumacher, with the first biodiesel research truck.

Schumacher says the high-level meetings were unnerving at times. "I traveled to D.C. to visit with people who scared me," he said of the senators and representatives, with a laugh. Schumacher also met with other researchers, original engine manufacturers (OEMs) and EPA officials, which fostered understanding and acceptance.

Challenges

In October 1991, Verry left the Illinois Farm Bureau and was hired by the Missouri Soybean Association, then led by Kenlon Johannes. Verry drove the ag engineering truck—an early-1990s Dodge and predecessor to the 1992 Ford F250 known as "Old Brownie"—from Columbia, Missouri, to Springfield, Illinois, fueled by SoyDiesel to spread the word about this new fuel.

"That was my first interaction with biodiesel," Verry says. From there, he traveled all over Missouri drumming up support. The ball was rolling. "Out of the box, farmers liked it," he says.

Pushback from the petroleum industry was challenging. "They have a huge lobbying effort, and that continues to be a challenge," says Warren Stemme, a St. Louis County farmer and chairman of Mid-America Biofuels, Missouri's first large-scale biodiesel plant.

Stemme helped lead the effort to build Mid-America Biofuels in Mexico, Missouri, but it would take years before the time was right. "End users had to be comfortable the product was legitimate—that it had a specification and would not damage engines and fuel systems," he says.

This points to the importance of Schumacher's early work, which laid the groundwork for acceptance by OEMs and end users. A decade's worth of time and money was invested in getting a fuel specification. But even then, production costs were so high that biodiesel was unable to compete in the market. "That's when major federal policy efforts were undertaken," Stemme says.

Policy efforts were also underway in Jefferson City at the State Capitol. Verry says he helped write early biodiesel policy with legislators, part of which stated that in order for a biodiesel facility to qualify for the 25-cent-per-gallon production incentive, the plant had to be 51 percent owned by Missouri farmers.

Project development dynamics under this stipulation were challenging, according to Stemme. "Initially we had pushback from Missouri growers," he says. "They didn't want to participate in a joint venture with a large agribusiness company like ADM. There was a lack of trust there. But Mid-America Biofuels board members became more comfortable working with them. They realized they were going to be in the industry—either with us or against us. We wanted them with us."

Verry says soybean farmers' commitment to this endeavor, even after years of nothing substantive to show for it, was a lifeline. "I'm sure at times they were scratching their heads at the leadership level," he says. "They've put \$150 million—maybe more—into the NBB biodiesel development program since the beginning. It really just started paying off in the past 10 years. In the first 20 years, we didn't have a lot to show for it. That was a big challenge."

Fuel quality was also a real concern in the early years. Today, however, with nearly two dozen iterations of the ASTM specification and widespread acceptance of the BQ-9000 quality control program, many of these issues have been resolved.

Key Milestones

In 1992, the National SoyDiesel Development Board—the predecessor to the NBB—was founded by Missouri, Iowa, Illinois and South Dakota soybean associations. Despite initial funding



A Conoco station on the western side of Jefferson City was first to offer biodiesel in the capital city.

by soybean farmers, Schumacher says acknowledgement of the need to grow beyond soybean oil came early on. This stemmed from recognition by some that, even though a glut of soybean oil existed in the market, it was largely a food product—and there was reluctance to divert this to fuel. Also, if biodiesel were to take off, soybean oil alone could only take it so far.

"We needed a bigger coalition," Schumacher says. It was this mentality that eventually led to the name change from "SoyDiesel" to "biodiesel."

In 1994, the National SoyDiesel Development Board voted to change its name to the National Biodiesel Board. This move was "another testament to the amazing vision farmer-leaders had back then," Verry says. "We had a feedstockneutral ASTM fuel spec. I still think that's an amazing story—how Kenlon Johannes and the farmer-leaders put this together. We wouldn't be here today if it weren't for U.S. soybean farmers' commitment to this fuel, and the big vision they had to let everyone in."

...continued on next page.

...continued from previous page.

Myriad policy achievements were major milestones in the commercialization of biodiesel. "The biodiesel industry utilized a number of financial assistance programs from the Missouri Ag and Small Business Development Authority," says Tony Stafford, who spent 28 years at the Missouri Department of Agriculture and the past six years at MSA as director of business development. These MASBDA programs included grants for feasibility and market studies; to develop business plans and prospectuses as farmers started to invest; and to offer loan guarantees.

"These programs, including the biodiesel incentive fund that was based on production gallons, were really big milestones," Stafford says. "They really helped the biodiesel industry get up and running."

Mid-America Biofuels certainly utilized them, including a feasibility study grant from MASBDA in 2001. Stemme says the feasibility study was completed within a year. "We went back to MASBDA and applied for a grant to get our business plan together, and we received that, too," he says.

It became apparent that soybean associations needed to support federal policy efforts, too, Stemme says. "The Missouri Soybean Association worked for years to build great relationships with federal officials," he says. The first \$1 per gallon blenders tax credit was introduced in the U.S. House of Representatives by Rep. Kenny Hulshof of Missouri. The measure passed in 2004 and went into effect in 2005.

"That kicked off the U.S. biodiesel industry, going from a small effort to large-scale production," Stemme says. "It leveled the playing field with petroleum diesel so we could compete in the market." Mid-America Biofuels opened its doors in 2006.



Schumacher's early biodiesel work included dismantling and reconstructing the engine and components frequently to assess impacts from the fuel.

The other major policy achievement just a few years later was the inclusion of a biomass-based diesel carveout in the second Renewable Fuel Standard. part of the Energy Independence and Security Act of 2007. Both measures—the blenders tax credit and RFS-were signed into law by President George W. Bush.

Stafford credits Schumacher and his early work on biodiesel as a major milestone. "His work gave a lot of credibility to the fuel and its development," he says. Without Schumacher's contributions, it is conceivable that the blenders tax credit would have never existed.

Although fuel quality was a real challenge to the industry for years, Stafford says overcoming those issues is an accomplishment not to be overlooked. "The BQ-9000 program created a lot of goodwill and goodquality fuel," he says.

Garnering EPA's attention was a notable moment for Schumacher. "When EPA knocks on your door and says, 'You've

got to talk with us,' that was big," he says. "And when legislators in D.C. say, 'You've got to be here because you know what this stuff is,' well that was big, too. When people of that stature are firing really pointed questions at you, you begin to say to yourself, 'This is bigger than I thought."

Benefits and Maturity

The glut of soybean oil on the market in the early 1990s significantly suppressed soybean values. "Back then, beans were \$4 a bushel," Verry says. "Soybean oil was 10 cents a pound—it was a drag on the price of whole beans. Today, about 13 percent of soybeans' cash value, or around \$1.40 a bushel, is attributed to biodiesel. Nine billion pounds of soybean oil [will be made into biodiesel] this year." Despite this volume of bean oil used in biodiesel production, nearly 70 percent of the oil generated from crushing still goes to food (61 percent) and non-biodiesel, industrial uses (8 percent).

Biodiesel's value proposition to Missouri's 34,000 soybean farmers is not just in higher bean prices. "If you look at the economic impact to Missouri farmers, even livestock farmers, it is very important," Stafford says, adding that cheaper feed prices and higher

...continued on page 14.

This would not have happened without farmer investment - at least not as fast as it did.

-Tony Stafford

We'll minimize your risk. You can rest easy.



Crop Insurance

Our Crop Insurance Teams are ready to help you manage your business risk with the expertise you need to make sound decisions. We'll help you find the products that protect your operation and give you peace of mind.

- ✓ Multi-Peril Crop Insurance MPCI
- ✓ Livestock Insurance MPCI-LRP MPCI-LGM
- ✔ Pasture Rangeland Forage PRF
- ✓ Crop Hail Insurance

Find an office near you:

1.800.444.3276

WWW.FARMCREDITSEMO.COM

WWW.MYFCSFINANCIAL.COM







... continued from page 12.

livestock values boost profits thanks to additional fat outlets. While higher farmgate prices are important, so is the investment opportunity biodiesel projects provide farmers, Stemme says.

Thirty years after that initial investment by MSMC, nearly 90 commercial-scale biodiesel plants dot the U.S. landscape from coast to coast featuring a cumulative annual productive capacity of 2.5 billion gallons. About half of all U.S. biodiesel produced is made from soybean oil. In addition, a number of large-scale renewable diesel plants are in development or operation, many of which also seek to use soybean oil feedstock. Today, Missouri is a top biodiesel-producing state with nearly 200 million gallons of capacity from seven production facilities.

"This would not have happened without farmer investment—at least not as fast as it did," Stafford says.

Farmers are the constant thread



Growing awareness of biodiesel and the opportunities ahead for soybean farmers was truly a team effort.

throughout the entire biodiesel epic. "Today, the rest of the country sees the vision those farmers saw then—and they want more of it," Verry says.

According to Schumacher, society was ready for change. "That helped drive this," he says. "And when Willie Nelson became a part of it, well—it made me feel like I was part of something I never expected. In the end though, we needed to prepare for the future. That's what the Missouri soybean farmers did. I don't know if they realized that then."

The U.S. biodiesel industry began on a shoestring budget. "Then it caught momentum," Schumacher says. "And it's still growing. That's what's cool."





2020 Brings Triple-Digit Yields

By Brandelyn Twellman

issouri soybean farmers posted high yields across the state in this year's annual Missouri Soybean Association (MSA) Yield Contest. The growers who won the irrigated and non-irrigated categories presented yields of 102.79 and 106.14 bushels per acre, respectively.

"The results of our annual Missouri Soybean Association yield contest exemplify the dedication of soybean farmers across the state," said Ronnie Russell, a soybean farmer from Richmond and president of MSA. "Statewide, we had a pretty good growing season and contest submissions reflected both stewardship and attention to detail. I always enjoy the friendly competition this contest presents, as well. Special thanks to our participants, contest officials and partners who make this event possible each and every year."

First place in the non-irrigated category went to Gary Porter of Porter Farms. Porter farms alongside his wife, three sons, nephew and brother in both Iowa and Missouri. This year, he raised 106.14 bushels per acre soybean with Pioneer P39A58X. Porter was pleasantly surprised by the contest results.

"We've never been able to get over 85-bushel beans before," he said. "I've entered the contest several times, but we never could break that barrier."

Like many, they had to replant some soybeans this year. They also had a dry August that dropped pods, but Porter attributes this season's high yields to improved inputs.

"The boys have been talking to me about soil tests and more fertilizer, but I'd been balking on it because the times are so tough. I'm trying to cut input costs to make sure I can make a living," he explained. "I got to cutting things so much that I think it actually hurt me a little bit. The boys talked me into a Cc soil test and getting into some experimenting again."

Considering test results and applying recommended fertilizers paid off.

"As soon as we did it, we started seeing a yield bump," Porter said. "This is the first year we've ever seen yields that high on beans." ...continued on next page.



Jerry Cox has found success raising high-yielding beans on his farm in Cape Girardeau County.

	State Winners - 2020							
First Name	Last Name	Farm Name	City	County	Dist.	Category	Variety	Yield Bu/A
				Dryland				
Gary	Porter	Porter Farms	Mercer	Mercer	2	No-Till	Pioneer P39A58X	106.14
Brian	Steinhoff	Steinhoff Grain Farms LLC	Portage Des Sioux	St. Charles	6	Conventional Till	Pioneer P47A12L	96.31
Matthew	Cox	Cox Farms	Scott City	Cape Girardeau	7	Conventional Till	Pioneer P48A60X	95.63
				Irrigated				
Jerry	Cox	Cox Farms	Delta	Cape Girardeau	7	Irrigated	Pioneer P45A02X	102.79
Matthew	Dumm	Matthew Dumm Farms LLC	Jasper	Jasper	4	Irrigated	Pioneer P42A96X	96.76
Steve	Sutter	Sutter Farms, Inc.	Taylor	Marion	3	Irrigated	Pioneer P42A96X	90.30

District Winners - 2020								
First Name	Last Name	Farm Name	City	County	Dist.	Category	Variety	Yield
Jordan	Bottiger	Steeles	St. Joseph	Andrew	1	No-Till	Channel 3718R2X	86.56
Gary	Porter	Porter Farms	Mercer	Mercer	2	No-Till	Pioneer P39A58X	106.14
Joe	Kruse		Huntsville	Randolph	2	Conventional Till	Asgrow AG43X0	74.08
Craig	Sutter		Maywood	Lewis	3	Conventional Till	Pioneer P42A96X	90.39
Christy	Nelson	Nelson Farm	Vandalia	Audrain	3	No-Till	MORSOY MS 3859E E3	78.21
Brett	Varner	Varner Bros Farms	Odessa	Lafayette	4	No-Till	Pioneer P38A98X	91.24
John	Brenner	Brenner Farms	Morrison	Osage	5	No-Till	Asgrow AG39X7	88.54
Brian	Steinhoff	Steinhoff Grain Farms LLC	Portage Des Sioux	St. Charles	6	Conventional Till	Pioneer P47A12L	96.31
John	Brenner	Brenner Farms	Morrison	Gasconade	6	No-Till	Pioneer P42A96X	87.72
Matthew	Cox	Cox Farms	Scott City	Cape Girardeau	7	Conventional Till	Pioneer P48A60X	95.63
Charles	Hinkebein	Hinkebein Farms	Chaffee	Cape Girardeau	7	No-Till	Pioneer P48A99L	90.86

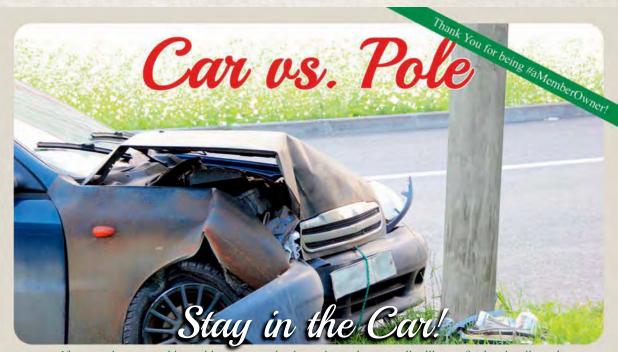
This experimentation did not come without research. Porter has spent several years learning about testing and inputs.

"Commodity Classic and high-yielding soybean sessions are examples of the things farmers can do to learn more about increasing their yields," he said. "I think it really pays off, and I think those rooms should be full at those conferences."

The contest's top honors for irrigated beans went to Jerry Cox of Cox Farms. He raised 102.79 bushels per acre in Cape Girardeau County with Pioneer P45A02X. The variety was new to their farm this year.

Cox is proud to be the third generation to farm in his family. He owns and operates his grandfather's land in southeast Missouri with his son, Matthew. This is his third year winning the irrigated portion of the yield contest. Cox's family farm has irrigated since the late 1970s.

"All of our land is flat with a one-tenth of one percent grade, and we irrigate probably 90 percent of it," he said. "Most of it is irrigated by furrow irrigation where we water between the rows." This irrigation helps Cox grow high-quality seed beans for Pioneer. Like many farmers across the state, he claims this growing season to be one of the best.



If you are in a car accident with a power pole, do not leave the car until utility professionals tell you it is safe. If the car is in contact with electrical equipment or power lines, it could remain energized.

Stepping outside could be deadly if your body becomes the path to ground for electricity.



MoElectricCoops.com

"The crop this year was probably our best soybean crop that we've ever had," he explained. "Corn was about average, but our growing season for corn and soybeans was almost perfect."

Cox was grateful his only challenge was replanting one section of soybeans that received heavy rains after first planting the field in mid-May. Like in most growing seasons, he and Matthew took some time to experiment on their farm this year.

"We're always trying different products and how we apply," Cox said. "But, everything came together good this year."

MSA's yield contest is made possible by contributions from the Missouri Soybean Merchandising Council and soybean checkoff, Beck's Hybrids, Baker Implement, Channel Seed, Missouri Crop Improvement Association, Sydenstricker Nobbe Partners, Asgrow, Pioneer, ProHarvest – Resor Seeds, JD Legacy, Stine Seed Co, BASF, Nutrien Ag Solutions, Corteva, Ursa Farmers Coop, MFA Incorporated and MFA Oil.



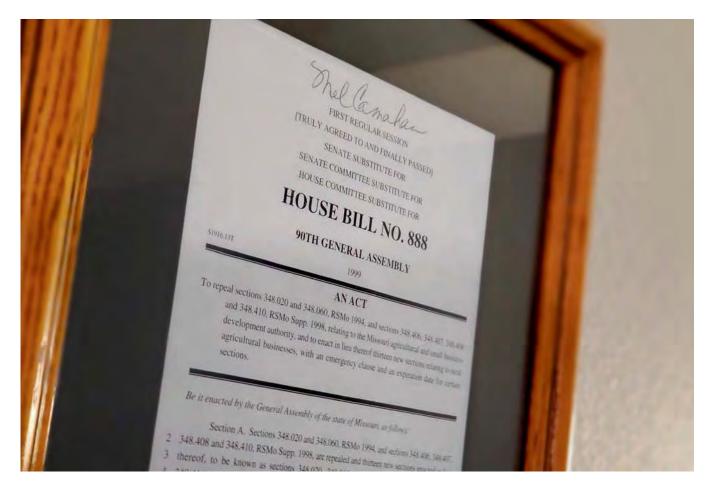
The contest's winning yields topped triple digits, the product of intentional work to grow high-yielding beans. Those yields included four-bean pods like this one from Gary Porter's 2020 harvest.

As the widespread adoption of no-till practices for soil conservation continues, the contest has seen fewer conventional tillage entries. There was not a conventional tillage winner for district 1, 4 or 5 this year.

Participants in the contest were required to enter their fields into the competition prior to harvest. At harvest, participants

were required to have a designated judge verify their yield results and submit their verified results no later than the Nov. 15 deadline. Details for the 2021 Yield Contest will be posted online at mosoy.org and announced in this magazine during the spring of 2022.

To learn more about the contest, or MSA, visit mosoy.org.



Learning as He Goes

Partnerships, policy and a few soybeans have helped Gary Marshall make big things happen during his nearly 50 years working for Missouri farmers.

By Christine Tew

Photos courtesy of Missouri Corn Growers Association and Missouri Corn Merchandising Council or the past 35 years – give or take a few months – Gary Marshall's name has been nearly synonymous with Missouri corn. Since the mid-1980s, whether the issue was ethanol, Atrazine, exports or something else affecting corn markets, Marshall has been part of the conversation.

The Jamestown, Missouri, native started his career in agriculture with a 13-year run managing a country elevator in his hometown. There, he met a lot of good people and learned a lot about the way things work in agriculture.

One of those people was Steve Carpenter. He and Marshall crossed paths at a soybean meeting and got to talking about Carpenter's position running Missouri's corn program. It turned out, he could use some help.

It wasn't long before Marshall was on his way to Jefferson City to interview for what would become his first association role: field man, or, in today's titling, director of field services. He worked out of Carpenter's basement and from his home in Jamestown, when not traveling the state – and continued to learn all he could.

"Steve was never afraid to call anyone who he thought could help," Marshall said.

He took that lesson to heart and put it to work.

Throughout the late 1980s, identifying new uses for the corn crop was priority.

"We had to develop new markets. We knew we couldn't depend on exports, and livestock feed was going up slowly, but we had to really look at new uses," he said.

Biodegradable plastics made from cornstarch were big, as were partnerships with the University of Missouri and national trade organizations.

"We worked off-and-on on plastics until the early 1990s, then we really moved to ethanol," Marshall said.

Developing the structure for ethanol production in Missouri had Marshall and his peers looking across industry and adapting ideas from other states. He recalled an example from sugar beet producers as especially helpful.

"We did a lot of research over about five years on producing ethanol in dry mill plants, and cooperatives and the equity needed to look at the farmer-owned structure," he said. "Today, we know that model as new/next-generation cooperatives. It helped us put together the tax credits and loan guarantees."

The legislation that came from that work, 1999's Senate Bill 310 and House Bill 888, truly moved the needle. HB 888 is one of a few bills Marshall has on display.

"We've kept that legislation on the wall at the office all this time," he said.

That legislation did more than open the door for ethanol plants in Missouri. It set the stage for resources now available through the Missouri Agricultural and Small Business Development Authority (MASBDA) and USDA.

"Credit to Jim Talent and partners at Missouri Soybean who were working on biodiesel in the early 1990s for their partnership," Marshall said. "We ended up taking what we'd done in Missouri, that model, to USDA to expand support for programs we still look to today.

All that came before the RFS – the Renewable Fuel Standard, he said. With that legislation in place, by the mid-2000's plants were under construction across Missouri and the U.S.

With the construction boom, came a shift in the industry.

"The traditional lines of how corn moved and the grain industry, we changed all that with the ethanol plants," he said. "We were looking at a 3- to 4-year education process for co-products, DDGs, and to work out transportation, distributors."

Fortunately, he said, "we got smarter as we built."

"We took what we did in Missouri and used it as a model for education and opening markets overseas."

That theme of learning from others and adapting existing models to solve problems has continued throughout Marshall's tenure with Missouri's corn organizations – now the Missouri Corn Merchandising Council and Missouri Corn Growers Association.

In the early 1990s, that collaboration flowed through working groups around new uses and ethanol. Today, Marshall is a strong voice on technical committees around ethanol, Triazines and other key corn policy issues at the national level. He also serves as the chairman

I've worked for farmers now for almost 50 years, and the people I've worked with have been the best.



Gary Marshall

for Missouri's agriculture coalition, the more than 40-member strong Missouri Farmers Care.

The partnership with Missouri's soybean organizations, especially around environmental stewardship and sustainability, as well as youth and consumer education, is stronger than it's ever been.

"We had a lot of commonalities and started working closer and closer," he said. "Now, with Missouri Farmers Care, we're working together more than ever, and we can all see how well that's working."

The examples of collaboration, from Missouri's Soil Health Partnership program and work with EPA to the CommonGround and Ag Education on the Move outreach efforts, come in spades as Marshall reflects on the years.

"All I've ever done is work for farmers. I've worked for farmers now for almost 50 years, and the people I've worked with have been the best," he said. "We're all a team, and I believe we've done very well."



Commitment to Conservation

Yoder family named recipients of Missouri's 2020 Leopold Conservation Award

By Jason Jenkins

Mill Creek Communications

here are two things Joshlin Yoder loves to do in the spring. The first enticed him back to the family farm; the second kept him there.

"We'd been living in Alabama for five years, and I hadn't been turkey hunting in a really long time," Joshlin says. "My dad had lost his hired man about that time, so he made me an offer. He'd buy my out-of-state turkey tag if I'd run the tractor for him in the afternoon and help him get the crop planted. That was all it took."

In 2008, Joshlin and his wife, Addie, left Alabama and moved back to Shelby County to become the third generation of the Yoder family to farm in Missouri. Today, the couple works in partnership with Joshlin's parents, Merlin and Twilah, and his brother and sister-in-law, Jordan and Becky. Combined, they manage about 4,500 row-crop acres and background roughly 1,200 cattle each year.

"To me, there's nothing more magical or enjoyable than producing corn and soybeans," Joshlin says. "Just putting that seed in the ground every spring with the faith that it's going to grow and produce a crop, that's exciting. As farmers, we do everything we can to nurture it and provide it with the best environment, and that all starts with taking care of the soil."

The Yoders' stewardship of the land on their farm and their efforts to inspire others earned them the 2020 Missouri Leopold Conservation Award, which recognizes extraordinary achievement in voluntary conservation. The award, which comes with a \$10,000 prize, was announced in January at the 2021 Missouri Cattle Industry Convention & Trade Show in Osage Beach.

Given in honor of renowned conservationist Aldo Leopold, the award provides a forum

where farmers, ranchers and other private landowners are recognized as conservation leaders. Considered by many to be the father of wildlife management, Leopold was a forester, philosopher, educator, writer and outdoor enthusiast. His collection of essays, "A Sand County Almanac," was published in 1949 and is one of the most respected and influential books about the environment ever written. Among Leopold's best-known ideas is the "land ethic," which calls for an ethical, caring relationship between people and nature.

The Leopold award has been presented annually since 2003 by the Sand County Foundation, which was established by a group of private landowners in 1965 to preserve the property north of Baraboo, Wisconsin, where Leopold did his writing and research. The organization has since expanded to support and promote voluntary conservation on working lands across the United States, currently presenting the award in 23 states. Missouri Farmers Care, the Missouri Soybean Merchandising Council and the USDA Natural Resources Conservation Service partnered with the foundation to bring the Leopold award to the Show-Me State in 2017. The Yoders are the state's fourth recipient.

Soil Saving Philosophy

While agricultural practices have changed greatly since Joshlin's grandfather, Andy Ray Yoder, established his original 240-acre farm back in 1953, the mentality of conserving soil and being good stewards of the land has always been part of the family's farming philosophy.

"Even when we were really tilling and plowing the soil, I could tell my dad always was concerned about thing like soil erosion and nutrient loss," Joshlin says. "As the science has evolved, our understanding of soil as farmers has evolved as well."

When Joshlin and Addie moved back to the farm in 2008, no-till farming wasn't commonplace among local producers, he says. While the family maintained waterways, built terraces and installed



To slow the movement of surface water and reduce soil erosion, the Yoders have installed terraces and drainage tile in many of their fields.

drainage tile to slow the movement of surface water and reduce soil erosion, traditional tillage in both the fall and spring was the norm for most as a means of managing crop residue and controlling weeds.

"We've learned that the more you work that soil, the more upheaval you get, the more compaction you cause, the greater the chance that soil erosion is going to take place," Joshlin says. "So, we decided to work toward a no-till system to help control soil erosion and reduce compaction from tillage. Today, we're 100% no-till on our soybeans and in the range of 20% to 25% with corn.

We haven't figured out no-till corn completely, but we've really tried to reduce the amount of tillage we do on ground going into corn."

Incorporating cover crops across more acres has been another erosion and nutrient management practice that the Yoders have adopted. Joshlin says that in the past, they planted cereal rye or winter wheat in the fall with the goal of creating cattle forage in the spring. However, doing so gave them a glimpse at other benefits.

"We learned just how much having that growing crop through the winter really ...continued on next page.

...continued from previous page.

reduced the amount of soil erosion on those fields should we have a big rain," Joshlin says. "We've had a lot of success using cereal rye, especially in front of soybeans. It's a hardy crop. It's easy to get established in the fall and fairly easy to terminate in the spring."

The Yoders continue to work to find a mix of cover crops that work well planted before corn. They've tried mixes with oats, radishes and turnips, as well as cereal rye. Joshlin says the biggest challenge is having enough time between soybean harvest and winter to allow the cover crop to establish.

"If we can figure that out, I think it could be a real gamechanger for us in northeast Missouri," he adds.

Nutrient Know-how

Like many producers today, the Yoders have adopted the "4R" nutrient stewardship concept when managing fertilizer inputs, ensuring they apply the right fertilizer source at the right rate at the right time and in the right place.

"I guess you'd say we've been doing the '4R thing' for a long time without realizing we were doing the '4R thing," Joshlin says. "We've always put emphasis on being efficient, making sure that we get the most out of the dollars we invest."

One of the first steps the Yoders took toward maximizing nutrient use while minimizing loss was to incorporate precision agriculture technology. Grid soil samples are collected from every acre they farm. This data, combined with crop nutrient removal from the previous year, allows them to apply both phosphorus and potassium at variable rates across the field.

Nitrogen also is managed more precisely. Joshlin says that in the past, standard practice was to apply anhydrous ammonia in the fall before planting corn the next spring. Now, they split their nitrogen application and apply a portion of it during the growing season.



Joshlin Yoder checks the outlet of a water-quality monitoring station on the family farm. The station is part of a demonstration project to compare differences in sediment and nutrient loss between a field with cover crops and one without.

"In 2012, we bought a liquid fertilizer applicator and began side-dressing corn in-season," Joshlin says. "By splitting that application, we're using less nitrogen overall because we aren't losing as much as when we applied it all in the fall. That rig allows us to get that nitrogen right where it needs to be to feed that corn crop when it needs it, and that's led to yield increases."

Borders and Bobwhites

While chasing gobblers through field and forest may have partially been responsible for bringing Joshlin and Addie back to Missouri, turkeys aren't the only wildlife you'll find on the Yoder farm. Rabbits, squirrels, white-tailed deer and other gamebirds including both ring-necked pheasant and bobwhite quail, along with scores of songbirds and other non-game species, reside on their property.

Ensuring these creatures continue to call the farm home was one goal, Joshlin says, when they enrolled acreage as habitat buffers in the USDA Conservation Reserve Program.

"We put about 30 acres in the CP33 field border program," he explains. "Quail

numbers in our area have been way down for a long time, so by creating some cover and brushy areas, hopefully we can increase their numbers and help other species, too,"

Not only does the program help wildlife, but it also helps the farm's overall productivity by taking marginal acres out of production. Joshlin says from a business perspective, CP33 pencils out.

"If I'm farming those acres on the edge, I'm spending the same amount on seed, fertilizers, herbicides, time, labor and equipment as I do on every other acre. but they don't produce as well and it's a net loss for me," he says. "By enrolling those acres in a program like CP33, I eliminate those costs and get the benefit of wildlife habitat. That's a win-win."

Advocating for Agriculture

Although Addie jokes that Joshlin is in production and she is in public relations, in reality, they both share their experiences with conservation and sustainability - both within the agricultural community and beyond through various activities.

...continued on page 24.





BRIGHT

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

...continued from page 22.

In 2017, the couple was among the first in Missouri to join the Soil Health Partnership, a farmer-led initiative that promotes the adoption of soil health practices for both economic and environmental benefit. Currently, a five-year strip trial is underway on the Yoder farm evaluating the impacts of cover crops.

"I was really excited to get involved and be part of the actual data collection," Joshlin says. "We're comparing ground with continuous cover crops right next to ground that doesn't. The goal is to figure out what is actually going on within the soil. It's a lot easier for a skeptic to believe when you have that hard data."

The Yoders also are working the Missouri Corn Growers Association (MCGA) and the Missouri Soybean Merchandising Council (MSMC) to conduct a water-quality study. A monitoring station collects water samples from two field drainage tiles one from a field with cover crops and one without.

"It's been interesting. You can see a difference in sediment and nutrient loss between the two," Joshlin says. "It's made an impact on our management and the timing of our applications to make sure that we're not applying just before a rain."

In 2018, the couple hosted a field day on the farm to share what was being learned and to inspire others in their community to embrace conservation.

"Working with the Yoders, I've seen how much dedication goes into making cover crops work," says Abigail Peterson, field manager for the Soil Health Partnership in Illinois and Missouri. "I've always been impressed with how they build soil health practices into their operation,



Addie Yoder shares their story of production agriculture and sustainability through her involvement with CommonGround, as well as through social media, podcasts and other platforms.

building soil resiliency for generations to come."

Both Joshlin and Addie also have become involved with leadership programs that allow them to share their story beyond the farming community. In 2015, Joshlin participated in the MCGA's CornRoots Leadership Academy, and Addie was part of the 2019 class of the National Corn Growers Association's Leadership Academy. In 2017, they both attended the DuPont New Leaders program, which helps farming couples become better communicators, leaders and advocates.

Addie also shares the family's story through various public speaking events, podcasts, social media and her involvement with CommonGround, a network of farm women who work to have honest and real conversations with other women who aren't involved in agriculture.

"Food is so emotional, and most Americans are just enough removed from the farm that they don't have a person who can answer their questions," she says. "With CommonGround, we bridge that gap between the farm and the grocery store."

Farming for the Future

Just as Joshlin and Addie were able to join the family farming operation, both share a desire to provide that same opportunity to their four children -Aliza, 14; Hazel, 12; Scarlett, 10; and Linus, 7.

"He's just in first grade, but Linus really loves the farm and being part of it," Joshlin says. "One day, he told my dad that he can't wait to graduate college so he can come back and farm all day. My dad asked him if he wanted to be a farmer, and Linus replied, 'All day, every day.' Hearing that and seeing his excitement just drives me to do the best I can with what we're doing here."

The Leopold Conservation Award Program in Missouri is made possible through support from the American Farmland Trust, Missouri Farmers Care, Missouri Soybean Association, Missouri Soybean Merchandising Council, Sand County Foundation, USDA Natural Resources Conservation Service, Missouri Cattlemen's Association, Missouri Corn Merchandising Council, Missouri Department of Conservation, MFA Incorporated, Missouri Association of Soil and Water Conservation Districts, McDonald's and The Nature Conservancy in Missouri. To learn more, visit mofarmerscare.com/lca.



MAINTAINING OUR REPUTATION TO DELIVER

Whether shipping by river, road or rail, the soy checkoff is committed to ensuring America's infrastructure is a significant advantage for U.S. soybean farmers. 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





Soy Innovation Scholarships

The Foundation for Soy Innovation doubled its investment into scholarships in 2020, supporting two graduate students in their work to address on-farm challenges facing soybean growers.

By Brandelyn Twellman

olving problems facing farmers is a priority across Missouri, both in work funded by Missouri soybean farmers and their checkoff and in research conducted by passionate students and professionals. Whether new uses, breeding or production practices, the Foundation for Soy Innovation empowers those working to further the soybean industry through an annual scholarship program. This year, the Foundation awarded scholarships to Haylee Schreier and Caio Canella, both graduate students at the University of Missouri.

"We believe there is a bright future for soy," said Matt McCrate, chairman of the Foundation. "Through the Foundation for Soy Innovation, we're working to support those who need to be at the table to really raise the bar on the work farmers have been doing. We're also working to ensure we take full advantage of the opportunities ahead in soy uses such as livestock feed, building products, biodiesel and high-oleic soybeans. This scholarship is one step in that effort."

Both 2020 scholarship recipients are passionate about the work they do to further the industry.

Schreier is a first-year master's student working to support the bottom line of farmers through weed-control research. She is studying weed science and works with Kevin Bradley on a project funded by the Missouri Soybean Merchandising Council testing the Weed Zapper.

Her research focuses on many problematic weeds common in soybean production, including waterhemp, cocklebur, marestail and ragweed. It tests the Weed Zapper's ability to prevent them from setting seed in soybean production. Schreier plans to use her scholarship to share her results with others, putting it toward travel and conference fees.

After graduation, she hopes to pursue a career as an agronomist, while also carrying on her family's farm in Lexington, Missouri. Schreier believes the education and training provided by her graduate program will be valuable in both future roles as she keeps soy innovation top of mind.

"I think soy innovation is important because soybeans do have several different uses that we don't really think that much about," Schreier said. "In my project, for example, since weeds are becoming resistant to chemicals, different methods of weed control are needed. If you look at more modern and non-conventional methods through the lens of innovation, I think weed electrocution could fit into that in the future."

As a doctoral student at MU, Canella's interests lie in soybean breeding and new varietal development. He studies under Pengyin Chen, working in the soybean breeding program at the Fisher Delta Research Center. His research is also supported by Missouri soybean farmers and their checkoff.

As a master's student, Canella focused on soybean resistance to nematodes. Today, his research is geared toward advancing the varietal development process.

"The goal of my Ph.D. is to find ways of developing soybean varieties faster and more precisely," Canella said. "Usually the way breeders do it is through field trials and a lot of visual selection, which can be very subjective. One of the components of my Ph.D. is that we are trying to make the development of a soybean variety as data driven as possible. We want to use molecular data, drone data, and a lot of different layers of data to support the development of soybean varieties."

In addition to his graduate program, Canella has worked to build his professional profile and connections.

"As a Borlaug Scholar with the National



Haylee Scherier



Caio Canella

Association of Plant Breeders, I had the opportunity to be mentored by the North America Head of Plant Breeding at Bayer and later intern with the company," he wrote in his application. "The combination of experiences from both private and public institutions have diversified my approach to plant breeding and expanded my understanding of each sector's structure."

He plans to use his scholarship to further professional development to both build connections and benefit his research. His goal is to attend a conference on drone image processing next summer, he said. Canella believes this is one step of many in his role to further the soybean industry as a whole.

"I started working with soy back when I was an undergrad in Brazil, almost ten years ago," he explained. "The reason I did was because I was so fascinated by how much you can do with soybeans. If you look at the seed composition, you have the highest protein content in a crop. You have a lot of oil content, and you can play with those seed quality traits with genetics.

"I believe everyone involved in agriculture wants to feed the world. And when you think about soybeans, it's literally a miracle bean that gives

you high-quality protein. I think the industry can start looking at soybeans not only for animal feed, but also making it widely available as a protein for humans."

The farmers behind the Foundation for Soy Innovation envisioned supporting early-career faculty and students in their work across the soy value chain through this scholarship program. Both Schreier and Canella expressed gratitude toward those farmers for awarding them scholarships to help further their academic and professional careers.

The Foundation for Soy Innovation exists to advance the technology, ingenuity and partnerships integral to the future of soy, at every stage in the process. From innovation in how farmers produce soy to elevating the ways we put soy to work, to developing environmentally friendly soy-based products, there are great opportunities ahead.

The Foundation is led by soybean farmer and longtime seedsman Matt McCrate of Cape Girardeau. To learn more about the Foundation for Soy Innovation, explore soyfoundation.org.



Where the Money Goes

Transparency is paramount for Missouri soybean farmers and their checkoff, and the board of directors and staff carry that as one of the Missouri Soybean Merchandising Council's values. Each year, this financial report appears in Missouri Soybean Farmer magazine as part of that committment.

By Christine Tew

he Missouri Soybean Merchandising Council, under the guidance of elected, volunteer farmer leaders and with the support of professional staff, invests Missouri farmers' soybean checkoff dollars to improve the bottom line and future for soybean and soybean farmers. The soybean checkoff amounts to just one-half of one percent of the net sale price of soybeans at the time of first purchase. Of the funds collected, half stay within the state and half are directed to national programs. Those funds must be invested toward improving the overall profitability for soybean farmers. Funds may be used for research, promotion and education efforts; soybean checkoff dollars may not be used for lobbying, membership or similar efforts and are watched closely by the USDA to ensure compliance with the Soybean Promotion, Research and Consumer Information Act and the USDA Soybean Promotion and Research Order.

The Council is comprised of a board of thirteen farmers. Board members represent seven districts across Missouri and are elected to three-year terms by their peers. The board is currently led by chairman Kyle Durham of Norborne, vice-chairman Aaron Porter of Dexter and secretary/treasurer Mark Lehenbauer of Palmyra.

During the 2020 fiscal year, which ran July 1, 2019, through June 30, 2020, the Missouri Soybean Merchandising Council invested in both ongoing and new programs with the goal of increasing the profitability of Missouri soybean growers. Providing transparency in how those dollars are spent is a top priority for the farmer leaders and staff in Missouri. Each year, those investments, as well as the Missouri Soybean Merchandising Council's internal management of checkoff funds, are audited by an outside, accredited accounting firm. The Statement of Activities accompanying this report includes those audited financials. Sharp-eyed readers might notice construction of the Center for Soy Innovation in Jefferson City, which was completed during the 2020 fiscal year, is not reflected in this report. It is considered a fixed asset and not presented on the Statement of Activities.

Beyond revenues and expenses, the Missouri Soybean Merchandising Council's budget is summarized using the following categories: Promotion, Research, Consumer Information, Industry Information, Producer Communications and Administration.

Promotion

Promoting Missouri-grown soybeans to stakeholder groups is a key component of investing the soybean checkoff. This budget area includes efforts to raise awareness within the market for Missouri soybeans, working with buyers along the soybean value chain – from grain elevators and processors, to retailers and end users – such as livestock producers. This budget area also includes efforts to build demand for Missouri soybeans and soy products around the world, including through work to identify new uses for soy.

Research

Each year, the board of directors solicits, reviews and selects research proposals for funding. Selected projects are subject to strict reporting and are posted online at mosoy.org and printed in the Annual Research Report. This budget area also provides for collaborative work on pest and disease resistance, flood and drought tolerance, and soybean breeding, as well as other work at the Missouri Soybean Association's Bay Farm Research Facility.

Consumer Information

The Consumer Information budget area is the home for efforts to connect Missourians not living on a farm or ranch to the importance of soy and agriculture. Missouri's Ag Education on the Move program for elementary school students and school administrators, the CommonGround program for women, as well as participation in the Missouri State Fair and other large public events all are part of

Missouri Soybean Merchandising Council **Statement of Activities** Fiscal Year 2020

REVENUES	
Assessment Revenues Collected From	
First Purchasers	\$11,981,702
Other States	\$1,673,752
	\$13,655,454
Less Assessment Revenues Remitted to:	
Other States	\$3,199,990
United Soybean Board	\$5,212,726
Less Collection Fees Prescribed by State Law Prior to 11/30/90	<u>\$28,435</u>
	\$8,441,151
Net Assessment Revenues	\$5,214,303
Contract Revenue	\$41,065
Royalty & Licensing Fee Income	\$436,672
Grant Income	\$173,988
Other Income	\$29,244
Reimbursed Expenses	\$17,254
Contributions	\$385,000
Sponsorship Income	\$434
Interest Income	\$112,533
Total Revenues	ec 410 402
Total Revenues	\$6,410,493
EXPENSES	
Program Expenses Promotion	\$1,126,282
Research	\$2,440,869
Consumer Information	\$724,948
Industry Information	\$620,764
Producer Communications	\$1,061,957
Froducer communications	\$1,001,937
Administration Expense	\$67,658
nummis@adon Expense	\$ 407,030
Total Expenses	\$6,212,478
10ttil 211ponoco	+ 5,212,17 5
Increase in Net Assets	\$198,015
Net Assets, Beginning of Year	\$9,028,119
	¥0,0 = 0,110
Not Acces. End of Your	
Net Assets, End of Year	\$9,226,134

this category. With the changes required by health concerns throughout 2020, many long-standing programs in this budget area were reworked to provide electronic resources, including videos and interactive online activities focused on farming and the many uses of soy.

Industry Information

Initiatives in this budget area include working with feed, seed and chemical companies, as well as manufacturers, to identify new management practices and uses for soybeans and soy products. This area encompasses business development and relationship building programs as well.

Producer Communications

This budget area includes the many ways checkoff funds are used to connect with soybean growers. Farmers who participate in grower meetings, field days, educational tours or who learn about new practices through this magazine are benefitting from the work done under this budget area.

Administration

This budget area includes the cost of overseeing and investing Missouri's soybean checkoff dollars, including management, personnel and facilitating elections and meetings of the Missouri Soybean Merchandising Council's board of directors.

Within each of these budget areas, staff of the Missouri Soybean Merchandising Council coordinate with the Council's board of directors in Missouri, and with national directors and staff of the United Soybean Board. Headquartered in St. Louis, the United Soybean Board is charged with investing half the soybean checkoff funds collected in national-level programs.

To learn more about the Missouri Soybean Merchandising Council and investments made on behalf of Missouri's soybean farmers, visit mosoy. org or call (573) 635-3819.



Upcoming Events

January 21 Missouri Soybean Association District 1 Virtual Meeting

January 22 Missouri Soybean Association District 2 Virtual Meeting

January 28 Missouri Soybean Association District 3 Virtual Meeting

January 29 Missouri Soybean Association District 4 Virtual Meeting

Want More?

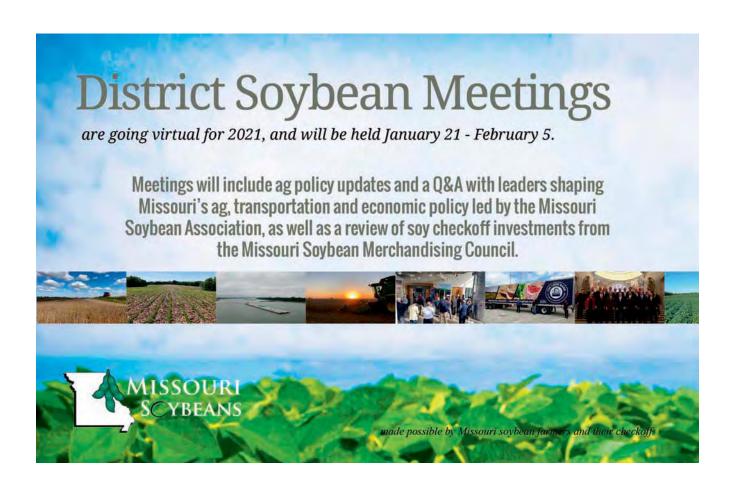
Visit us at mosoy.org!

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

February 1 Missouri Soybean Association District 5 Virtual Meeting

February 4 Missouri Soybean Association District 6 Virtual Meeting

February 5 Missouri Soybean Association District 7 Virtual Meeting



Neighbors Helping Neighbors

issouri Farm Bureau and Missouri Soybean--We are neighbors in every sense of the word. When I pull out of the back drive from the Farm Bureau Home Office in Jefferson City, the Soy Innovation Center is a stone's throw away down the road. When I was elected MOFB president a few short weeks ago, I received phone calls and text messages from MSA and MSMC leaders and your staff. Now that's a neighborly welcome!

By way of introduction, my family and I farm just west of Appleton City—where the Ozarks meet the Plains in St. Clair County. We raise beef cattle and do our best to be good stewards of the land. It's a family endeavor, as Jennifer and I try to instill with our three children the work ethic and sense of responsibility we learned growing up—and the notion that chores are more easily finished when they work together.

MOFB, MSA and our fellow agriculture organizations recognize the importance of working together to improve the lives of farm and ranch families and protect and promote our industry. It's what we do as neighbors in the agriculture community.

In the policy arena, approval of Amendment 3, Cleaner Missouri, by our fellow Missourians was a testament to grassroots outreach through social media and one-on-one conversations by our farmer members with family, friends and neighbors.



Garrett Hawkins

Passage of Senate Bill 391 in 2019 was another tremendous victory for Missouri's farm and ranch families in the form of regulatory certainty. Requiring that county health ordinances controlling the siting of livestock farms be no stricter than state regulations was the right policy—and still is as we stand together to defend the law.

Promoting agriculture and its economic impact is an endeavor we all embrace. We are excited to be a part of the Missouri Food, Feed, Fiber, Fuel and Forest (MO-5) Consortium, which is focused on accelerating the growth of Missouri agricultural businesses—and the state's economy.

When the pandemic hit and disrupted supply chains, we all offered ideas and ways to help. We can be proud of Governor Parson, Director of Agriculture Chris Chinn, and the team at the Missouri Department of Agriculture for allocating a portion of federal CARES Act funding to bolster meat processing capacity in the state. These dollars will make a real difference to small meat processors and the farmers and consumers whom they serve.

Like you, MOFB is focused on the future and invests in our greatest asset: youth. Missouri FFA, 4-H, and the Agricultural Leadership of Tomorrow program are among the beneficiaries of our individual and collective efforts. Investing in those who will carry our industry forward is the soundest investment we can make. The Drive to Feed Kids is another example of the agriculture community coming together to help our rural and urban neighbors alike.

We have shared successes through the years and endured some tough times as well—and we always have work to do when it comes to infrastructure, broadband, biofuels, environmental regulations and other policies that impact farmers and ranchers. I've worked with many of you through the years and developed life-long friendships. In fact, my two oldest children still talk about Garrett Riekhof, your District 4 Director, teaching them the importance of eye contact and a firm handshake when greeting people—a life lesson shared by Garrett at a past MOFB Young Farmers and Ranchers Conference.

Thank you for your partnership and know that I will be excited to shake your hand and greet you as my neighbor when we meet down the road.

Garrett Hawkins was elected to serve as president of the Missouri Farm Bureau in December 2020.





WHEN PUSHING YIELDS, IT PAYS TO BE FLEXIBLE.

Drive profitability and manage tough-to-control weeds with the combined performance of Asgrow® brand soybeans and XtendFlex® Technology – the industry's first triple-stacked soybean trait containing tolerance to dicamba, glyphosate and glufosinate. Ask your dealer how much further you can grow when Asgrow leads the way.



Bayer is a member of Excellence Through Stewardship® (ETS). Bayer products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Bayer's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. Commercialized products have been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold, in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move materials containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

XtendiMax® herbicide with VaporGrip® Technology is part of the Roundup Ready® Xtend Crop System, is a restricted use pesticide and must be used with VaporGrip® Xtra Agent (or an equivalent vapor-reducing agent). For approved tank-mix products (including VRAs and DRAs), nozzles and other important label information, visit XtendiMaxApplicationRequirements.com.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. XtendiMax® herbicide with VaporGrip® Technology is a restricted use pesticide. Not all products are registered in all states and may be subject to use restrictions. The distribution, sale or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited. Check with your local dealer or representative for the product registration status in your state. For additional product information, call toll-free 1-866-99-BAYER (1-866-992-2937) or visit our website at www. BayerCropScience.us. Bayer Crop Science LP, 800 North Lindbergh Boulevard, St. Louis, MO 63167.

Products with XtendFlex® Technology contain genes that confer tolerance to glyphosate, glufosinate and dicamba. Glyphosate will kill crops that are not tolerant to glyphosate. Glufosinate will kill crops that are not tolerant to glufosinate. Dicamba will kill crops that are not tolerant to glufosinate. Dicamba will kill crops that are not tolerant to dicamba. Contact your seed brand dealer or refer to the Bayer Technology Use Guide for recommended weed control programs.

Asgrow and the A Design®, Asgrow®, Bayer, Bayer Cross, Roundup Ready® and XtendFlex® are registered trademarks of Bayer Group. LibertyLink® and the Water Droplet Design® is a trademark of BASF Corporation. ©2020 Bayer Group. All Rights Reserved.

