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« Cover Shot

The special cover wrap featuring the new Center for Soy Innovation was photographed by Jason Jenkins of Mill Creek Communications just before the Center's grand opening.

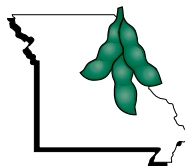
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From The Field

Notes from Missouri Soybeans' leadership team

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Matt McCrate, Cape Girardeau
Ronnie Russell, Richmond



A month ago, many of us were anticipating a finalized USMCA and Phase I agreement with China would fuel improvement in the commodity markets. I certainly looked at those agreements with optimism, both personally and as you placed your trust in me to lead the Missouri Soybean Association.

Continued downward pressure wasn't what I was seeing. Nor was a global health crisis.



Looking back on the past few weeks, including the grand opening for the Center for Soy Innovation, it really hits home for me how much farmers are the eternal optimists. Investing doesn't stop because we're going through tough times.

Even when things aren't the way we'd want them to be, farmers don't have the option to sit – and wring our hands – and wait. We have to go out to our fields and plant. After all, if we don't plant during planting season, we won't have anything to harvest come Fall.

Mother Nature may test us again this year as well. Between moisture levels and levees still awaiting repair, there's a lot that doesn't look good. But we farmers are the eternal optimists. Every year is a new challenge. So, we will plant and make the effort to do all that we can and have faith things will get better. I know they will.

Ronnie Russell - Missouri Soybean Association President

It was only a few weeks ago that we celebrated the grand opening of the Center for Soy Innovation. During that celebration, I shared that the driving question behind developing the Center was knowing who and what we, Missouri Soybean, want to be for the next 10, 20 and even 30 years.

We put a huge emphasis on technology and on flexibility. Thinking about how much has changed from 1990 to today, and how quickly new technologies became integral to our lives, we knew we had to be able to adapt our spaces and systems. And without a doubt, the innovations we'll see between now and 2050 will be just as life-changing.



The hallmark of the Center is truly its flexibility. Just as we're prepared to change as the times need us to change with technology, we'll do the same for our visitors - whether we're bringing in a plot combine or sprayer for training, or having a group of school kids in on a field trip.

It's quiet in the Center now, as we've postponed tours, in-person meetings and events amid COVID-19. It'll be really good to see the education spaces, meeting rooms and demonstration areas come to life again this summer. And I look forward to seeing you there.

Robert Alpers - Missouri Soybean Merchandising Council Chairman

Letter from the Executive Director

Think differently. Act differently. Be different.

On the surface, those six words sound really simple. In practice, vision rarely comes easily.

We have to actively look for that path forward for those who depend upon us and whom we rely. We have to seek out the opportunities ahead, embrace change and adapt. We have to be ready.

That's where we are in the Center for Soy Innovation. The visioning and strategic planning process that brought us to the concept for a hub for all things soy showed us very clearly that the future for Missouri's number one crop isn't in only in raising more beans, feeding more livestock and fueling more trucks. The bright future for soy depends on innovation and new uses for soy, on partnerships and fresh perspectives, and on opening both our doors and our minds to new opportunities to add value.

The Center allows us to connect people to the full life cycle of Missouri's top crop. It also adds value as a living demonstration of the many uses of soy already in the marketplace. We are ready to embrace the perspectives and grow understanding from people of all ages who may not have a direct connection to the farm or to our 'mighty bean.' It's truly incredible.

And personally, seeing each member of our team grow through this process, from the farmers who took these new challenges head-on to the staff who stretched their professional bandwidth at every stage, was huge for me. It was an incredible privilege to have your trust throughout the visioning, construction and opening.

Our vision was to be so much more than your Missouri soybean organizations could be inside a simple office building, and I'm truly excited to bring in our partners for deeper engagement with the Center later this year.

Please don't hesitate to let us know as you find your Missouri Soybean team may be of service to you. I wish each of you all the best as we head into planting season.

Stay safe, stay healthy and God bless.



Gary Wheeler

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



During the grand opening of the Center for Soy Innovation, Eli and Ella were able to visit with Gov. Mike Parson. It was a proud moment for Liz and me, and one we hope they cherish - including Ella sharing some soybeans with Gov. Parson.





Soy Innovation Celebration

Soybean farmers, industry partners and the local business community celebrated the grand opening of the new Center for Soy Innovation March 5 in Jefferson City. More than 200 people joined in the events, which included a ribbon cutting with the Chamber of Commerce.

By Christine Tew

Photos by Mill Creek Communications

The Missouri Soybean Merchandising Council's efforts to drive research and education for all things soy are starting 2020 by 'leveling up' through new opportunities with the new Center for Soy Innovation. The Center is the result of a years-long planning process, followed by more than a year of construction, and stands to connect developments in soybean innovation with farmers and industry partners, as well as the community.

"This is bringing our number one crop and our soybean research to people in a very real way, communicating the impact soybean have on our lives every day," said Missouri Soybean Merchandising Council chairman Robert Alpers of Prairie Home. "The Center for Soy Innovation is our answer to 'Who and what are we going to be to the farmers of Missouri for the next 20 years?', and we're very proud of this path forward."

The Center was built on land purchased by the Missouri Soybean Association to support the project. The nearly 5-acre tract in western Jefferson City was previously owned by the Stockman family and has strong agricultural roots, having been the site of both a railroad spur and anhydrous plant.

The Missouri Soybean Association and Missouri Soybean Merchandising Council broke

The grand opening of the Center for Soy Innovation capped a multi-year planning and construction project for Missouri's soybean organizations and kicked off a new wave of opportunities for partnership, education and the bright future for soy.

ground on the project in July 2018. Both soybean organizations' boards of directors and staff worked closely with Jefferson City-based The Architects Alliance to develop the building concept, design plans and scout locations.

The Center for Soy Innovation brings together many organizations working with and on behalf of Missouri's soybean growers in one location, including the Missouri Soybean Association and Merchandising Council, the Biodiesel Coalition of Missouri and Foundation for Soy Innovation, as well as the administrative functions for farmer-owned biodiesel plants, Missouri Farmers Care and the Ag Education on the Move™ program.

The Center further serves as a hub for business development and incubation, as well as value-added agriculture.

"There's no other facility like this bringing together education and conference space with the Missouri-based research and commercialization work on environmentally friendly, soy-based products," Alpers said. "We look forward to hosting school groups, hands-on trainings, workshops and events – better serving soybean farmers and better connecting with people who might not have strong personal ties to agriculture."

The facility showcases soy-based building materials and demonstrates

new uses for soybean, from soy-based counter tops, flooring and insulation to turf, asphalt sealant and a biodiesel-fueled heating system. The soy-based materials and options include:

- Soy-based Countertops and Partitions by EcoTec Surfaces
- Soy-Based Carpet Backing-BioCel by Signature
- Wall Insulation-Heatlok Soy 200
- ProMar 200 Acrylic Soy-based Paint by Sherwin Williams
- Quiet Comfort 86 Oil Furnace fueled by biodiesel
- Anova Soy-based Asphalt Rejuvenator by Cargill

Visitors to the Center will also see soy-based artificial turf by SynLawn on the front walkway, and a grain bin vestibule courtesy of Bruce Martin Construction and GSI.

Inside the building, hands-on educational exhibits, including a soy foods-focused activity table, are perfect for kids and school groups. A "spinning wall" gives visitors the chance to test their knowledge of soy uses, and a fuel pump, courtesy of MFA Oil Company, is the perfect setting for a biodiesel selfie while learning about the renewable fuel.

Artificial soybean plants show each growth stage of the crop, giving visitors a chance to see beans firsthand year-round.

Throughout the Center, photos of



Soy doughnuts were a hit at the grand opening, honoring both the rich history and the future of soy foods in one delicious treat.

Missouri farms and agribusiness, along with soybeans in action, come to life thanks to vinyl work by Envision Signs and Wraps of Eldon, Mo.

The Center also highlights water quality, with a bioretention basin at the rear of the property fitted with a soil bed planted with native vegetation and pollinator plots. A water quality monitoring station is planned for installation this spring.

Opening the Doors

The Center's grand opening celebration featured tours of the facility and a group photo captured by drone – complete with a ribbon cutting thanks to the Jefferson City Chamber of Commerce ambassadors. Soy doughnuts, a longtime tradition of the organization, were served, paired with milk courtesy of Midwest Dairy and Jefferson City's Central Dairy.

The events were hosted by Alpers and Missouri Soybean Association president Ronnie Russell of Richmond, and included congratulatory remarks from Missouri Governor Mike Parson, American Soybean Association CEO Ryan Findlay and the United Soybean Board's Mace Thornton, vice president of communications and marketing. The Missouri Soybean Merchandising

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“There’s no other facility like this bringing together education and conference space with the Missouri-based research and commercialization work on environmentally friendly, soy-based products.”

-Robert Alpers

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Council's immediate past-chairman, John Kelley of Faucett, asked a blessing on the project.

"Missouri Soybean has a foundation of farmers coming together to solve problems, from developing markets for beans to ensuring farmers' freedom to operate," Russell said. "This is both a celebration of that rich history and a huge step forward in growing our relationships with all who rely on soy – our mighty bean – through innovation, advocacy and education."

One of the questions raised several times during the grand opening was funding for the project. Robert Alpers, chairman of the Missouri Soybean Merchandising Council, spoke to that, explaining the Center for Soy Innovation was funded through a combination of savings, individual contributions and corporate partnerships.

The savings were accumulated over many years, and those partnerships included both cash and in-kind support. The individuals and companies who contributed to the project are recognized in the vestibule, including a special group of Friends of Education who specifically supported programming through the Foundation for Soy Innovation.

"The Center was constructed without the Missouri Soybean Merchandising Council or Missouri Soybean Association taking on debt," Alpers said.

Both Alpers and Russell shared their excitement for the future in the Center for Soy Innovation, as the new facility, with its education center and conference space, expands Missouri Soybean Association and Missouri Soybean Merchandising Council opportunities to host current and potential partners, along with youth groups.

To learn more about Missouri's soybean organizations and the Center for Soy Innovation, and to schedule your tour of the new Center, visit mosoy.org.



Governor Mike Parson encouraged Columbia FFA members at the grand opening to come forward, recognizing the next generation of agriculture being engaged with farmers and the Center for Soy Innovation.



Visitors mingled with one another while exploring the Center and its educational exhibits. Simon the Soybean was even on hand for photos with soybean-loving guests.



The biodiesel-fueled heating system was a draw for many attendees.

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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

Soybean markets – including domestic crush and use – continue to be top-priority issues for the Missouri Soybean Association team on both state and federal policy. Ensuring biodiesel markets are both protected and able to grow is key. The Association is also actively working to address legislation affecting farmers' bottom line and freedom to operate.

State Policy

Missouri's legislative session is in full swing, with key legislation moving through the House and Senate despite an extended spring break.

SB 568 and HB 1858

The Missouri-Made Fuels Act continues to be the top priority for the Missouri Soybean Association. The legislation was perfected by the House two weeks before the annual legislative spring break, which is extended this year amid COVID-19 concerns. While the legislation has been amended, the core purpose has remained intact: instituting a biodiesel standard that will increase biodiesel consumption in Missouri.

A major shift since the legislation was first heard in both the House and Senate has been the addition of out-of-state truck stops opposing the biodiesel standard. In a letter sent to legislators in February, a group of truck stops advocated for an incentive-based bill that would pay them for blending biodiesel in Missouri. Each of the organizations on that letter is already blending biodiesel in Missouri. It was not lost on legislators and supporters of SB 568 and HB 1858 that those out-of-state companies were asking to be paid for something they're already doing...

As far as Missouri-based opposition goes, the Missouri Trucking Association and Missouri Petroleum Marketers and Convenience Store Association are the loudest voices.

Notably, MFA Oil Company – the parent company of Breaktime Convenience Stores – has been and continues to be a major supporter of the legislation. MFA Oil leaders have testified in both the House and Senate in support of SB 568 and HB 1858.

The strong support and success SB 568 and HB 1858 have seen already this legislative session wouldn't be possible without the partnership of the Missouri Soybean Association's fellow ag organizations, including the Missouri Corn Growers Association, Missouri Pork Association, Missouri Farm Bureau Federation, Missouri Cattlemen's Association, Missouri Farmers Care, Missouri Agri-Business Association and many others. As of this writing, HB 1858 was perfected in the House with an added amendment to sunset the legislation after 10 years – which would require the legislature to reconsider the bill by 2030.

SB 597 and HB 2033

Eminent domain policy continues to make its place in the legislature, with these two pieces of legislation intended to ensure the use of eminent domain is both protected and limited. Within the first three weeks of session, HB 2033 was passed through the House chamber;

it currently awaits a Senate committee hearing. Its companion bill, SB 597, was voted Do Pass out of the Senate energy committee.

SB 983 and HB 2321

Prior to the start of Missouri's 2020 legislative session, the Missouri Soybean Association and other ag organizations worked to help members of the Missouri State Tax Commission understand the negative impacts of a proposed increase on ag land values given the current ag economy. While they were successful in preventing an increase this year, knowing the importance of the issue, those same partners took it a step further to support legislation that would cap future increases.

The legislation, SB 983 and HB 2321, prohibits the Commission from raising productive ag land values by more than two percent over the value in effect prior to the rule change or by more than eight percent over the lowest value in any of the ten years prior to the rule change. Both bills have passed out of their respective ag committees as of this writing.

HB 2532

In an effort to reduce the likelihood of harm from pesticide misapplication, the EPA recently finalized a rule that expands the competency standards of training certification for Restricted Use Pesticides (RUPs). To assist Missouri in compliance with the new EPA rule, Rep. Don Rone has filed legislation to change provisions governing Missouri's pesticide certification and training programs.

The new EPA rule does not carry a funding mechanism to support those changes. The Missouri Department of Agriculture and the University of Missouri are working closely with partner organizations, including the Missouri Soybean Association, to ensure necessary changes to the existing program are clearly communicated to all involved, including farmers and applicators, and appropriate resources are available for those impacted.

Federal Policy

The Missouri Soybean Association works closely with partners at the American Soybean Association and National Biodiesel Board on federal issues. Trade and biodiesel continue to be priority issues in Washington, D.C.

China

While the U.S. saw a 2.5 percent decrease in soybean tariffs earlier this year as some of the retaliatory measures were lifted, movement on trade has not been quick or substantial. China's efforts to tackle the outbreak of COVID-19 have further slowed both negotiations and imports. The general consensus is that it's unlikely a Phase Two deal will move forward anytime soon.

USMCA


The United States and Mexico continue to wait for Canada to fully ratify USMCA, as it will not go into effect until all parties have ratified the agreement. Mexico did so in November, with the U.S. ratifying shortly after in January. Canada's Senate passed legislation mid-March to implement USMCA, and their Parliament sittings are suspended until April 20 in an effort to stem the spread of COVID-19 in Canada.

Small Refinery Exemptions

The National Biodiesel Board, alongside the National Corn Growers Association, Growth Energy and the Renewable Fuels Association, continue to advocate for an end to the use of Small Refinery Exemptions by the EPA. Specifically, the biofuel community is united in wanting a recent decision by the 10th Circuit Court to be applied nationally – stopping EPA abuse of the exemptions.

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. 



Beyond Trait Talk

As new herbicide-tolerant soybeans hit the market, growers shouldn't overlook comprehensive weed management.

By Jason Jenkins

Mill Creek Communications

Photos courtesy of
United Soybean Board

Flip through the pages of soybean seed catalogs today, and the choices seem nearly endless. In 2020, growers are selecting from arguably the largest and most diverse set of herbicide-tolerant soybean technologies the industry has ever offered.

While characteristics — such as maturity group, soybean cyst nematode resistance, disease tolerance, insect resistance and, of course, yield potential — weigh heavily on seed choices, there's no question that herbicide-tolerant traits play a large factor in what seed gets loaded into a planter.

According to the International Survey of Herbicide Resistant Weeds, 512 unique cases of herbicide-resistant weeds worldwide have been identified as of early 2020. Resistance was reported in 262 different species and in 93 crops across 70 countries. Of the 26 known herbicide sites of action, weeds have evolved resistance to 23 of them.

Maintaining weed control is vital to soybean profitability. While herbicide-tolerant traits have in many ways become the weed-control program, MU Extension Weed Scientist Kevin Bradley says it's important for growers to implement a complete herbicide program to minimize weed pressure.

"Where we are today, it's not like it used to be when we got started with Roundup Ready," he says. "Growers need to think beyond just the trait for weed control."

Pre-Plant Priorities

Regardless of the herbicide-tolerant traits that growers elect to plant, Bradley recommends they adopt a “two-pass approach” to their herbicide programs. While the specific products applied can vary, the goal is to gain weed control through the combination of both pre-emergent and post-emergent soil-residual herbicides with multiple effective modes of action.

“From some growers’ perspective, they think that if they have a dicamba system or a 2,4-D system or whatever the new trait technology happens to be, they may not need a two-pass approach, but I disagree with that,” he says. “To me, the most important herbicide pass you’re going to make is that pre-emergent pass.”

A pre-emergent herbicide can be applied before, during or just after soybean planting. Depending on what herbicide resistance may present in a field, these products might include Authority, Valor, Fierce, Sonic, Boundary, Prefix, Zidua Pro or Trivence, to name a few. The timing of this application should be based on field conditions.

“Ask yourself, ‘What am I putting this on?’” Bradley says. “Is it a no-till field, one that’s been lightly tilled, or do you have cover crops to deal with?”

Previous research has found little difference in the timing of the application of pre-emergent herbicides between no-till and more traditional tillage systems. However, new research from the University of Missouri — published in the January-February 2020 issue of *Weed Technology* — found that the timing of cover crop termination affected the quantity of pre-emergent herbicide that reached the soil.

“To me, the most important herbicide pass you’re going to make is the pre-emergent pass.”

—Kevin Bradley

After establishing several cover crop species in the fall, the researchers applied a combination of 2,4-D and glyphosate either 21 days or 7 days before soybean planting to terminate the cover crops. A pre-emergent herbicide, Authority Maxx, was included in the burndown mixture. The concentration of Authority in the soil profile was measured immediately after application and throughout the growing season to determine how much was intercepted by the cover crop and how much actually reached the soil to provide residual weed control.

When averaged across cover crop species in the experiment, there was about a 50 percent increase in cover crop biomass between the early and late termination dates. This increase in biomass reduced the amount of Authority directly reaching the soil by more than half. The end result was a 20 percent reduction in waterhemp control between the two termination dates.

“Based on our research, we say keep the pre-emergent application out of your burndown if you’re terminating cover crops that are waist high or taller,” Bradley says. “Too much of that residual herbicide is getting tied up by the cover crop. It won’t be available for soil uptake, so you’re wasting money there. It will be better to come back later with the residual.”

“Now, if you’re burning down that cover crop earlier, say when it’s no more than knee high, our data says it’s perfectly

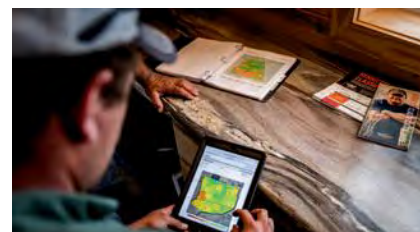
fine to include your pre-emergent,” he adds. “You’re going to get the benefit out of the herbicide.”

Bradley is often asked what pre-emergent residual is best for controlling waterhemp, Missouri’s top herbicide-resistant weed. The weed scientist says soybean growers do have choices.

“Look, I’m not trying to shy away from taking a stand,” Bradley says with a little laugh. “There are numerous products that provide equivalent waterhemp control, and we’re lucky that’s the situation.”

Instead of focusing solely on waterhemp, Bradley says producers should select a pre-emergent product that will control the pigweed species, while also targeting the weed of second-most concern in a field. In some fields, that might be a grass species. In others, it could be marehail or even ragweed.

“Yes, start with your worst weed, but then work backward from there as far as your pre-emergent selection,” he adds. “That’s how you can start to differentiate between products.”



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EDITOR'S NOTE:

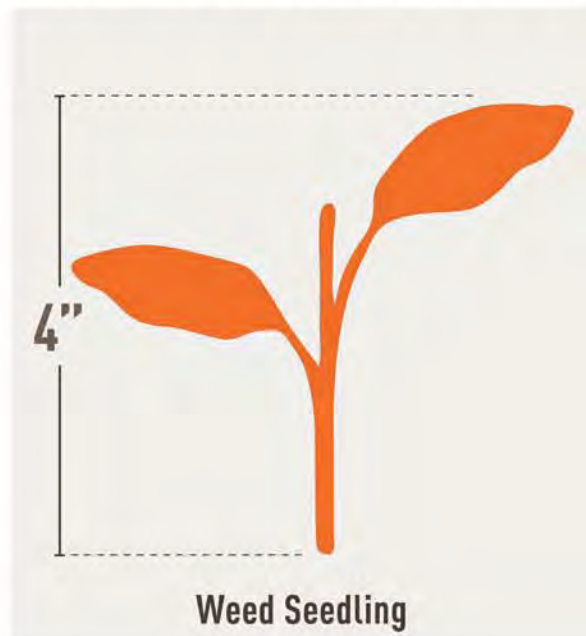
This is the second article in a yearlong series examining the past, present and future of weed control in the production of soybeans in the Show-Me State. This issue, we look at current options growers have for chemical control of weeds in their soybean fields.

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The State of Traits

In 2020, a familiar offering of herbicide-tolerant seed technologies is available to soybean producers. Most varieties that will be planted in Missouri fall into one of three genetic platforms: Roundup Ready, LibertyLink and Enlist.

This will be the sixth growing season that the original glyphosate-resistant soybean, Roundup Ready 1, will be off patent, allowing growers to save seed, if they so choose. The trait still is available through some university breeding programs and smaller seed suppliers, even though Monsanto, now owned by Bayer, phased the trait out of its stock years ago. Roundup Ready 2, which entered the market in 2009, also remains a standalone option for growers.

“Honestly, I don’t hear a lot of people just sticking with plain old Roundup Ready because glyphosate isn’t effective

against waterhemp at all,” says Bradley of the Group 9 herbicide. “Most are going with Xtend beans.”

Roundup Ready 2 Xtend soybeans, which are tolerant to both glyphosate and dicamba, received USDA approval in 2015. Last year, the trait accounted for 60 percent of the soybean crop planted in the United States, covering roughly 54 million acres. The technology has faced heightened scrutiny: Dicamba injury from off-target movement the past three seasons has resulted in a new set of restricted-use labels for the herbicides.

“The federal registration for the approved herbicides all expire this December, so they’ll be up for re-registration,” Bradley adds.

While not yet commercially available, the next generation of the Roundup platform — XtendFlex — could find its

way into some fields in 2020, pending regulatory approvals. This trait provides triple-stacked tolerance to glyphosate, dicamba and glufosinate, the active ingredient in Liberty herbicide.

Glufosinate, a Group 10 herbicide, is the over-the-top active ingredient to which LibertyLink soybeans are tolerant.

First planted in 2009, the LibertyLink platform still remains a standalone option for this growing season. However, there are new developments in the LibertyLink family that may soon be available.

BASF, which owns the LibertyLink platform, has launched Credenz soybeans with both the LibertyLink and the new GT27 trait. These soybeans are tolerant to glufosinate, as well as glyphosate and the Group 27 herbicide, isoxaflutole.

"It's the active ingredient in Balance, which we've used in corn since the late 1990s," Bradley says. "If you sprayed that on other soybeans, you'd kill them, but it's designed for use with their trait pre-emergence. It's a different mode of action that we don't use in soybeans, so that's one way it might be helpful."

BASF is still awaiting approval of Alite 27, its trademarked isoxaflutole herbicide, for use on LibertyLink GT27 soybeans.

Bradley adds that Credenz is the first example of a soybean trait that confers pre-emergent herbicide tolerance, rather than tolerance to a product sprayed post emergence. He says more such traits will likely be coming in the future.

The third and most recent technology platform available to Missouri soybean

“With any of the systems today, you’re not going to kill 12-inch-tall waterhemp as effectively as four-inch-tall waterhemp. You really have to pay attention to weed size and make your application at the right time.”

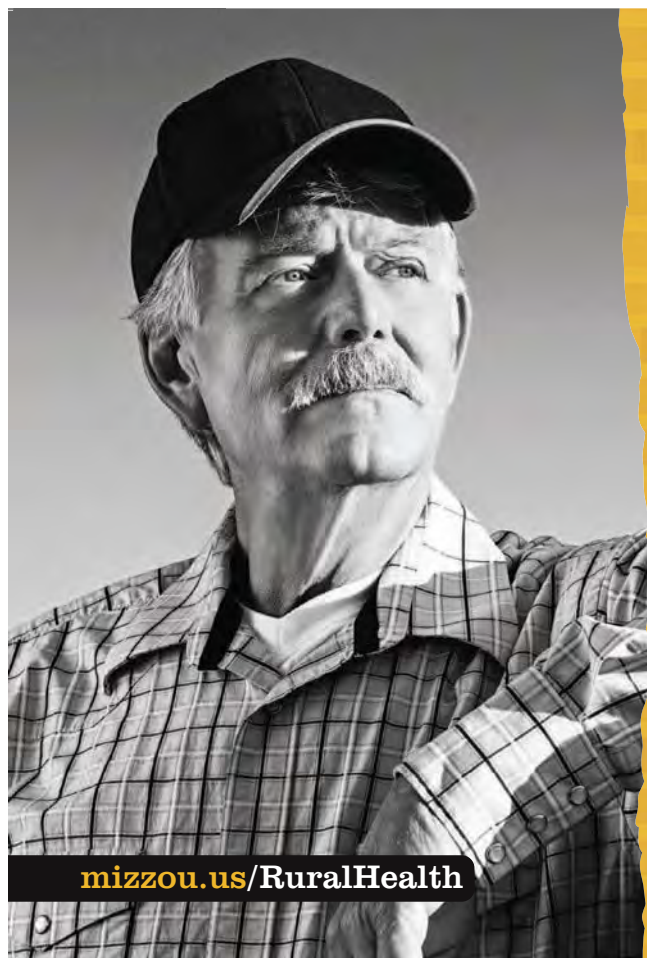
—Kevin Bradley

growers is the Enlist E3 system, an offering from Corteva Agriscience first available in 2019. These beans have a trait that confers tolerance to glyphosate, glufosinate and the Group 4 herbicide 2,4-D choline. Corteva currently has two herbicide products registered for use on Enlist soybeans: Enlist One, a 2,4-D choline product, and Enlist Duo, a glyphosate and 2,4-D choline pre-mix. Bradley anticipates that 90 percent or more of Missouri soybean producers will utilize one of these three technology platforms — Xtend, LibertyLink or Enlist

— in 2020. While each is unique, he says they all have one thing in common.

"None of them are like Roundup used to be. They are all very sensitive to weed height," says the researcher. "When Roundup was working, it could kill something a foot or two tall the same as something four inches tall. With any of these systems today, you're not going to kill 12-inch-tall waterhemp as effectively as four-inch-tall waterhemp. You really have to pay attention to weed size and make your application at the right time."

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Each also has a specific set of application parameters and guidelines that growers absolutely must follow. This includes everything from application rates and environmental conditions to the correct nozzles and tank cleanout procedures.

“We really have to pay attention to those details a whole lot more,” Bradley says. “It’s not just a matter of following the label. It’s the law.”

Of the choices currently available to suppress weed pressure and management against herbicide resistance, Bradley says he’s a proponent of those that offer multiple modes of action against weeds.

“Look at the Enlist system. You can spray Liberty and 2,4-D together, so that’s two effective modes against waterhemp,” he says. “It’s all a numbers game with resistance. Anytime we’ve sprayed just one effective mode in the past, it’s usually resulted in resistance at some point. By spraying two, I’m taking that potential for resistance and minimizing it greatly.”

Mindful of Management

Regardless of the technology platform a producer elects to plant, adopting the two-pass approach is key to maximizing the efficiency of any herbicide program. When successful, the soybean canopy closes and weed control is achieved. One to two weeks after the post-emergence

application, fields should be scouted, and any surviving weeds should be rogued before they reach reproductive stage.

“Rogueing out anything that didn’t get controlled is your best bet at a clean field in the future,” Bradley says. “It may not be all that big of a deal from a yield standpoint this year, but from a seed standpoint and what’s going into your soil next year, it’s a huge deal.

“Growers who are willing to go to that next step, who aren’t satisfied with a weedy field, who have an attention for detail, who mix effective modes of action, they’ll have the cleanest fields.”



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HELPING YOU DELIVER ON DEMAND

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

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





Study: Soy Checkoff ROI is Up

Third-party study finds soy checkoff investments provided added value, even in recent down-market times.

Courtesy of the United Soybean Board

According to a recent independent economic study, the soy checkoff continues to translate farmer investments into significant benefits for U.S. soybean farmers. The results of the 2019 return-on-investment (ROI) study, which is required by the U.S. Department of Agriculture, found that U.S. soybean farmers received \$12.34 in added value for every dollar they invested in the soy checkoff.

“These have been some of the toughest years to be a soybean farmer,” said USB Chair Jim Carroll III. “We have to be wise and careful with our investments in this business, and I’m proud that our soy checkoff continuously adds value to our industry.”

The ROI was conducted by Dr. Harry Kaiser, a leading research expert at Cornell University in the field of agricultural economics and its application to commodity checkoff programs.

“The study finds that USB’s activities have had a positive and significant impact on soybean demand between 2014 and 2018,” Dr. Kaiser said.

Key findings included:

- U.S. soybean farmers received \$12.34 in added value for every dollar they invested in the soy checkoff over the last five years.
- Every dollar U.S. soybean farmers invested in international promotion activities produced \$17.95 in return value.
- Soy checkoff investments made toward demand-enhancing research and promotion returned an average value of \$18.18.



Collaborative soy checkoff investments in production research that leverage industry and academic partners continue to provide promising returns to U.S. soybean farmers, returning an average value of \$9.42.

These estimates were reached using econometric models of domestic and international soybean markets that allowed the research team to net out the impacts of other important factors — such as other crops, substitute commodities, income, exchange rates and economic conditions in importing countries — to determine the estimated impact of the soy checkoff's work and investments.

Specifically, the study analyzed the demand- and supply-enhancing activities funded by the soy checkoff between 2014 and 2018.

USB's 78 volunteer farmer-directors work on behalf of all U.S. soybean farmers to achieve maximum value for their soy checkoff investments. As stipulated in the federal Soybean Promotion, Research and Consumer Information Act, the USDA Agricultural Marketing Service has oversight responsibilities for USB and the soy checkoff.

For more information on the United Soybean Board, visit unitedsoybean.org.

GROWING ROI IS WHAT WE DO

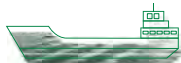
How do we turn farmer investment into ROI? Let us count the ways.

OUR MISSION IS SIMPLE: TO GROW RETURN ON INVESTMENT (ROI) FOR U.S. SOYBEAN FARMERS. ACCORDING TO RECENT ECONOMIC ANALYSIS, THE SOY CHECKOFF IS DOING JUST THAT. HERE'S HOW IT ALL BREAKS DOWN:



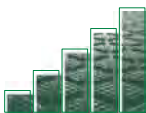
\$12.34 ROI

U.S. soybean farmers received \$12.34 in added value for every dollar they invested in the soy checkoff over the last five years.



\$17.95 ROI

Every dollar U.S. soybean farmers have invested in international promotion activities produced a \$17.95 return in added value.



\$18.18 ROI

Soy checkoff investments made toward demand-enhancing research and promotion returned on average \$18.18 in added value.



\$9.42 ROI

Collaborative soy checkoff investments in production research that leverages industry and academic partners produced a \$9.42 return in added value to U.S. soybean farmers for every dollar invested.

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Missouri Soy in Cambodia

As Cambodia's first in-pond raceway system opened, Missouri's David Leuck was in country to speak to opportunities created using high-protein soybean meal for feed in aquaculture operations.

By Karen Coble Edwards

U.S. soybean growers delivered four key soy protein messages to current and potential customers in Cambodia and Myanmar where protein demand is rapidly growing for aquaculture and livestock feeds, as well as human foods.

Recently, the American Soybean Association's World Initiative for Soy in Human Health's (WISHH) Southeast Asia trade team also celebrated a milestone with a WISHH strategic partner by joining a ribbon cutting for Cambodia's first in-pond raceway aquaculture system, an important innovation for the sustainable increase of fish production in the region.

U.S. Department of Agriculture (USDA) funds supported the January 12-20 travel for the 13 soybean leaders to have face-to-face discussions with WISHH's many contacts in the human food and livestock feed industries. U.S. Ambassador W. Patrick Murphy addressed the U.S. and Cambodian business leaders during WISHH's 2020 U.S.-Cambodia Soy Trading Conference.

"We came to make personal connections with our current and future customers for U.S. soy. By visiting Cambodia and Myanmar, we hope we demonstrated how much we care about these emerging markets and our customers' success using U.S. soy," said WISHH Program Committee Chair Daryl Cates.



In addition to seeing the raceway system in action, David Lueck (center) participated in a briefing with the team in Cambodia, alongside Missouri Soybean director of bio-fuels and new uses Matt Amick (left).

“First, we stressed that U.S. soy is high-quality protein. Second, we shared with these emerging market leaders that the United States is a reliable supplier of sustainable soy to meet their protein needs,” Cates said “Third, we emphasized that U.S. soy is delivered in containers, bags and really however they want it. Finally, we reinforced the message to Cambodia and Myanmar’s food and feed leaders that we will help them maximize the value of U.S. soy through WISHH’s multi-faceted technical assistance.”

The Missouri Soybean Merchandising Council (MSMC) supported WISHH technical assistance in the planning and construction of Cambodia’s first in-pond raceway aquaculture system.

The system allows for a channel with a continuous flow of water to grow fish at the Rathada Farms Hatchery. The family-owned business breeds tilapia and catfish. Rathada raises the fish through the “seed” and fry stages before selling fingerlings to fish producers in the region.

“Our Missouri farmers’ soybean checkoff dollars were vital to WISHH’s work with Rathada on the new raceway,” said David Lueck, a WISHH Program Committee member and a past MSMC chairman who served on its board for more than a decade.

“WISHH leveraged our investment by integrating Rathada’s strengthened fish-production capacity into WISHH’s USDA-funded Commercialization of Aquaculture for Sustainable Trade (CAST) – Cambodia project.”

CAST is a USDA Food for Progress project designed to develop a lasting aquaculture industry in Cambodia. Cambodia’s GDP has increased by more than 7 percent per year since 2011, growing the demand for animal

“Our Missouri farmers’ soybean checkoff dollars were vital to WISHH’s work with Rathada on the new raceway. WISHH leveraged our investment by integrating Rathada’s strengthened fish-production into WISHH’s USDA-funded Commercialization of Aquaculture for Sustainable Trade (CAST) - Cambodia project.”

-David Lueck

and aquaculture-sourced protein. The country’s aquaculture industry demand for soybean protein is projected to reach 100,000 metric tons per year by 2030.

In addition to Cates and Lueck, the trade team included other WISHH Program Committee members, as well as representatives of six U.S. soybean exporting companies to directly share information about U.S. food grade

soybeans and how U.S. soy is available in containers.

While in Southeast Asia, the WISHH trade team also traveled to Myanmar. WISHH is leading USDA-funded activities to grow Myanmar’s human food market, and the U.S. Soybean Export Council (USSEC) is active in the animal feed and aquaculture sectors. ■



The Missouri Soybean Merchandising Council supported WISHH technical assistance for both the planning and construction of the first in-pond raceway aquaculture system in Cambodia - an important relationship for growing soy demand.

HONOR WALL

Good news from those working on behalf of Missouri soybean farmers

American Soybean Association Awards

The American Soybean Association (ASA) recognized outstanding volunteers and leaders at its annual awards banquet during Commodity Classic in San Antonio, awarding individuals for state association volunteerism, distinguished leadership achievements and long-term, significant contributions to the soybean industry.

Congratulations to the 2020 winners!

ASA Pinnacle Award Winner Kenlon Johannes, Kansas

ASA's ultimate honor, the 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.

For nearly 50 years, Kenlon Johannes has focused on broadening relationships to strengthen the soybean industry. After college and a few years teaching grade school, he returned to his family farm in Nebraska in the mid-1970s and joined the Nebraska Soybean Association and American Soybean Association. Now CEO of the Kansas Soybean Association and administrator of the Kansas Soybean Commission, in the past he served as the top executive for soybean associations in Wisconsin and Missouri. During the early 1990s, recognizing the untapped potential of surplus soybean oil, Johannes worked with farmer leaders and university researchers to promote and identify new uses for soybean oil—resulting in biodiesel.



Kenlon Johannes

In 1992, Johannes' biodiesel passion led him to move from his state association role to become the first executive director of the newly formed National SoyDiesel Development Board in Jefferson City, Mo. It later became the National Biodiesel Board.

"Kenlon's dedication to the integrity of the soybean checkoff program is evident and his quiet, humble, lead-by-example style has made him a leader that other leaders, including myself, look to as an example," wrote Donnell Rehagen, executive director of the National Biodiesel Board, in his recommendation letter. "It is hard to imagine those early days of the entire industry fitting around a single board-room table and biodiesel being sold farm co-op to farm co-op by the five-gallon bucket when the industry now moves nearly three billion gallons through all levels of the petroleum supply chain, utilizing more than eight billion pounds of soybean oil and adding 63 cents in value to every bushel of soybeans grown."

Johannes' commitment and skills as an educator and organizer, particularly around biodiesel, have made the U.S. soybean industry stronger for all soybean farmers.

Johannes was jointly nominated for the award by Missouri Soybean CEO/executive director Gary Wheeler, Tennessee Soybean CEO Parks Wells, and farmer-leader David Womack, National Biodiesel Board CEO Donnell Rehagen and MARC- IV's Alan Weber.



Johannes, second from right, was an early leader for the biodiesel industry - playing an integral role in both the research and commercialization of the technology in Missouri, as well as on the national stage with the now-National Biodiesel Board.

ASA Outstanding State Volunteer Award Winner Neal Bredehoeft, Missouri

The Outstanding State Volunteer Award recognizes the dedication and contributions of individuals who have given at least three years of volunteer service in any area of their state soybean association operation.

“In his time serving his fellow Missouri soybean farmers, Neal has touched every area of production, marketing, policy, grower and consumer education, mentoring, leadership and fundraising,” wrote Gary Wheeler, in nominating Bredehoeft. “Perhaps most importantly, he’s brought up others alongside himself. In each step of his volunteer career, Neal has shown outstanding foresight in leaving organizations and the entire value chain stronger than he found them, recruiting and mentoring the next generation of leaders.”



Neal Bredehoeft

Bredehoeft served on the Missouri Soybean Association Board in all the state’s executive leadership positions and on the ASA board for nine years, including time on the ASA executive committee. He also served a term as ASA president.

In farming with his wife and brothers, Neal carries on the family tradition of investing in technology and being good environmental stewards of their land, wrote David Leuck, a fellow farmer and soybean leader now representing Missouri on the board of directors for the World Initiative for Soy in Human Health, in his letter nominating Bredehoeft for the honor.

“In his community, he’s active in education, volunteering with the local school district to give youth a chance to experience Missouri’s number one industry first-hand,” Lueck wrote. “He’s a driver for biodiesel usage and growth and an advocate for other new uses of soy. Above all, Neal is a role model in how to not only to give back in meaningful ways, but in his ability to inspire others to do the same.”

Bredehoeft was an early advocate for biodiesel in Missouri and throughout the U.S. and he continues that advocacy through involvement with his state association’s Biodiesel Working Group and support of biodiesel production in Missouri. He’s also represented Missouri soybean farmers during international marketing missions and welcomed numerous visiting trade delegations to his farm in western Missouri.

“Neal Bredehoeft represents the best of Missouri agriculture. He is a leader on the family farm, in his community and for our state,” wrote Meagan Kaiser, United Soybean Board director from Bowling Green, Mo., in her recommendation letter for the award. “After all of his service, he remains energized and optimistic, looking toward our future not only as farmers, but as the Soy Family.”

The soybean industry has benefited from Bredehoeft’s many hours of volunteer service in all areas and his long-term strategic thinking, commitment to maintaining a strong state organization, and focus on making a difference that will outlast his service.

Bredehoeft was nominated for the honor by Missouri Soybean CEO/executive director Gary Wheeler. Kaiser and Leuck supported the nomination through letters of recommendation. ■



Neal Bredehoeft, right, accepted the award during the ASA Awards Banquet at the 2020 Commodity Classic in San Antonio. President of the ASA board of directors, Bill Gordon, presented the award.

HONOR WALL [CONTINUED]

Brinkers Win Leopold Award

Brinker Farms Inc. of Auxvasse was named the 2019 recipient of the Missouri Leopold Conservation Award®. The award, named for renowned conservationist Aldo Leopold, recognizes farmers, ranchers and foresters who inspire others with their dedication to land, water and wildlife habitat management on private land.

Brinker Farms Inc., operated by the Kenny and Susan Brinker family, demonstrates how modern pork and row-crop farms can protect the soil, water and air, while caring for livestock and wildlife. The Brinkers' business model focuses on their farrow-to-finish operation, Harrison Creek Farms, row-crop production, as well as processing and marketing Brinker Farms Pork.

In 1993, Kenny and Susan, relocated to their Callaway County farm and began designing new hog facilities to address existing environmental constraints. The Brinkers, who now farm with their children, were one of the nation's first farm families to adopt the National Pork Board's Comprehensive Nutrient Management Plan, but their conservation journey began long before.

"Our parents taught us by example the importance of taking care of the land and our animals," said Kenny Brinker. "We give the best care to our pigs because they are our livelihood and we are their stewards."

Modern buildings allow the Brinkers to provide a comfortable environment for their livestock and control manure management. With Environmental Quality Incentives Program (EQIP) funding for irrigation equipment, nutrients from the operation's manure storage lagoon are distributed to hundreds of acres of cropland, supplying crop nutrient needs while reducing input costs for fertilizer.

"In agriculture, our greatest resource is the land, and as farmers, it is our duty to be good stewards of that land for future generations," said Robert Alpers, chairman of the Missouri Soybean Merchandising Council. "Sustainability is a top priority for the Missouri Soybean Merchandising Council and key to our mission of supporting a bright future for soybean farmers. This award puts a spotlight on farm families, like the Brinkers, living the example of outstanding stewardship."

The Brinkers use a variety of conservation practices including no-till, grass waterways, terraces and variable-rate technology on their corn and soybean fields to improve soil health, fertility and water quality. In the past five years, the Brinkers incorporated cereal rye as a cover crop to improve the soil's infiltration rate and further reduce erosion.

The Brinkers, working with a state



deer biologist, also developed a plan to enhance the quality of the whitetail deer herd. In addition, the Brinkers worked with a soil conservationist to transform a neglected wet area into a six-acre wetland which attracts beavers, muskrat, ducks and geese.

The Leopold Conservation Award Program in Missouri is made possible thanks to the support of Missouri Farmers Care, Missouri Soybean Association, Missouri Soybean Merchandising Council, USDA Natural Resources Conservation Service, Sand County Foundation, Missouri Cattlemen's Association, Missouri Corn Merchandising Council, MFA, Inc., the Missouri Department of Conservation, Missouri Soil and Water Conservation Program, Association of Missouri Electric Cooperatives, Missouri Association of Soil and Water Conservation Districts, McDonald's, Missouri Soil and Water Conservation Districts, and The Nature Conservancy in Missouri.

For more information on the award, visit leopoldconservationaward.org.

Riekhofs Complete Leadership Program

Missouri farmers Garrett and Cara Riekhof completed the ASA Corteva Young Leader Program this year, participating in training focused on leadership development, industry issue updates and outreach.

Bill Gordon, ASA President, and Adelai Swanson, U.S. Government Affairs, Corteva Agriscience™ are pictured with the Riekhofs (center). For more information about the ASA Corteva Young Leader Program, visit soygrowers.com.



FULL-CIRCLE RETURN

HERE'S HOW THE SOY CHECKOFF WORKS. The national soy checkoff was created as part of the 1990 Farm Bill. The Act & Order 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.



* Led by 73 volunteer soybean farmers, the United Soybean Board (USB) invests and leverages soy checkoff dollars to MAXIMIZE PROFIT OPPORTUNITIES for all U.S. soybean farmers.

unitedsoybean.org





Growing Through Service

As he retires from the Missouri Soybean Association board of directors, Doug Thomas reflects on the impact of volunteering.

By Brandelyn Twellman

Born and raised on the family farm in Brashear, Mo., Doug Thomas' roots have always run deep with a passion for agriculture.

"Growing up, I didn't know any different," Thomas said. "Farming is a tradition in our family. My grandad came from northwest Iowa, and now I live on the farm he bought in 1959. I was a crop insurance adjuster for a few years in the '80s when times got tough, but agriculture picked back up and I went back to the farm full time."



Thomas' 2009 board portrait

Today, Thomas is passing that tradition on to the next generation. His son, Matt, is getting involved in the family operation, Thomas Farms.

"It's the family farm that my grandad and my dad owned and operated," he said. "Then, I worked in partnership with my dad, and now, my son has started getting more into it in the last four or five years."

Sharing his knowledge of and passion for the industry is not a new concept. Thomas and his wife, Becky, served Missouri agriculture on the state Farm Bureau Young Farmers and Ranchers Committee. He said this started him on a path of agricultural service, advocacy and promotion.

Thomas was then elected to the Missouri Soybean Association (MSA) board of directors in 2005, representing growers in District 2. He served the maximum term of 15 years and held every executive office in the organization. His involvement in MSA allowed him to develop his knowledge of agricultural policy while serving soybean farmers across the state.

Thomas, at left, with members of a 2016 trade delegation from Ecuador he hosted on his northeastern Missouri farm in his role as District 2 director for the Missouri Soybean Association.

"I learned about the policy side of the soybean industry along the way," Thomas said. "You know what's right for you and your operation, so you know what's right for farmers like you back home. I learned more about the policy supporting that while serving on the board."

His biggest policy takeaway was the importance of being quick to take action.

"The number one thing I learned is to be proactive," he said. "Even our defenses against property rights battles and anti-ag legislation were proactive. I always felt like we were fighting the right fight, while also looking toward the future."

Thomas played an integral role in progressing the Missouri soybean industry throughout his years of service. One of his favorite wins for the Association was growth of the biodiesel industry in Missouri.

"Work on biodiesel was started before I was elected to the board, but continuing support for it and seeing the value that it's added to our industry has to be one of the top issues that has come along."

Fighting anti-ag legislation to defend Missouri farmers and developing Missouri Soybeans' Bay Farm in Columbia were also highlights of his time on the board.

Sitting in the Center for Soy Innovation in Jefferson City, Thomas said its establishment might just take the cake.

"We're sitting in a building that is the next wave of both the education and legislative processes in Missouri," he said. "You can do a lot of good things with the resources integrated in this facility."

Thomas also noted the increase in cooperation he's seen among Missouri's agricultural organizations over the years.

"Missouri Farmers Care has organized all of the commodity groups a little

better," he said. "Even if it's not a Missouri Farmers Care project, I've noticed more support and partnerships between the groups because of that coalition. I think each group now spends more time noticing what brings them all together."

In addition to enacting change in the industry, Thomas has witnessed changes within the board itself throughout his years of service.

"The board has gotten a lot younger," Thomas laughed. "But, in all seriousness, one of the biggest changes is that we have instituted term limits and are bringing more people onto the board faster. We're getting to more people in Missouri and getting them involved."

He said this increases participation on the board itself and in Missouri's soybean industry as a whole.

"I don't foresee being off the board and not doing anything. Once people get involved, they usually stay involved."

The board has also evolved with increasing technology and resources.

"The way we can constantly stay in contact has changed the way we communicate on the board," Thomas said. "It used to be limited phone calls, but now technology has really changed the way we stay up-to-date with what everyone else is doing."

Thomas said he encourages anyone who has an interest in agriculture to get involved in some capacity.

"Not everybody is a 'stand at the mic and shout' person, but that doesn't mean you're not passionate or proactive. Find your spot. You can be the guy in the back and still be passionate. We do need our spokespeople, but not everyone in the industry will play the same role."

Thomas said he has enjoyed finding his place in the industry and on the board, along with the learning opportunities and company provided throughout his



Doug Thomas and his wife, Becky, (on right) are long-time supporters of the Missouri State Fair and frequently volunteered their time in the soybean booth. During the 2014 Fair, they visited with Missouri Director of Agriculture Richard Fordyce and Senator Roy Blunt.

years of service.

"I learned a lot serving on the MSA board. We did a lot of joint meetings with the Merchandising Council board, and there are many great people on both. A lot of people mentored me, and I enjoyed the time I was able to spend learning from them. We also have great Missouri Soybeans staff. They're very well respected, always welcoming and have made me feel part of the soybean family."

Looking forward, he believes the future is bright for the MSA board.

"We've had a lot of battles, and we've lost a few, but we've won some really big ones," Thomas said. "I think this board and the way it operates is on the right track. We're always trying to fight the good fight."

One thing he knows for certain – the heart behind decisions made by the farmer leaders serving MSA will remain unchanged.

"You don't always go to the shed in the morning thinking about how you're growing the biggest crop in the state for the biggest industry in the state," Thomas said. "But, I think all our board members could agree that you always think about your family, your neighbors and your friends. Whenever you go to a board meeting and have to make decisions, you're always thinking about who it affects back home. To me, that's the point of being on the board." ■

MEMBERSHIP MATTERS

The Missouri Soybean Association works to ensure sound agriculture policy is in place for family farms today, and to secure a bright future for ensuing generations.

New Soybean Leaders

The farmer-directors serving the Missouri Soybean Association volunteer to serve their fellow growers at the helm. Each is elected by their peers at the district level, and the board leadership team is further elected to serve in those roles at the annual meeting.

By Brandelyn Twellman
and Christine Tew

Ray County soybean farmer Ronnie Russell was elected as the new president of the Missouri Soybean Association during the annual meeting in Jefferson City. Following his installation at the Commodity Classic conference, Russell leads Missouri's statewide advocacy organization for soybean growers.

"I look forward to bringing farmers together to strengthen the Missouri soybean industry," Russell said. "We take pride in the work we do to address the challenges of Missouri soybean growers. We're advocates for the industry and take that role seriously as we fight to protect farmers' freedom to operate and their competitive advantage in the global marketplace."



Ronnie Russell

Russell will serve a one-year term as the Association's president, leading Missouri's soybean policy, regulatory and outreach efforts on behalf of farmers across the state.

Tom Raffety of Cape Girardeau, a District 7 director and past president of the Association, led the nominating committee.

Prior to becoming president, Russell served as the Association's vice-president. In addition to farming near Richmond, he and his wife, Robin, operate Russell Sunflower Patch. Russell also represents Missouri on the board of directors for the American Soybean Association.

In addition to Russell, the Missouri Soybean Association leadership team includes vice-president Matt Wright of Emden, secretary Renee Fordyce of Bethany, and treasurer Peter Rost Jr. of New Madrid.

The past president, C. Brooks Hurst of Tarkio, will continue to serve on the board of directors, where he represents northwestern Missouri's District 1.

The Missouri Soybean Association also welcomes a new farmer-leader following this year's district director elections. Kate Lambert, a farmer from Laclede, was elected to the Association's board of directors during the District 2 meeting February 14 in Norborne. She joins her fellow board members in guiding the organization's policy, advocacy and membership efforts.

In addition to Lambert, several incumbent directors were elected to another term.

Renee Fordyce of Bethany and Ronnie Russell of Richmond were re-elected to represent District 1. Bruce Wilson of Mexico was re-elected to represent Missouri growers in District 3. Dane Diehl of Butler was re-elected to represent District 4. Tom Raffety of Cape Girardeau and Matt McCrate of Cape Girardeau were both re-elected to represent southeastern Missouri's District 7. Director elections took place at their respective district's meeting.

"We appreciate the participation and support we've seen from soybean



During the District 2 meeting in Norborne, Kate Lambert was elected to represent growers previously served by Doug Thomas. Thomas retired from the board of directors at the conclusion of the meeting after serving the maximum number of terms.

farmers across the state through this process," Gary Wheeler, CEO and executive director for the Missouri Soybean Association, said. "As a grassroots-driven, farmer-led organization, having a strong board of volunteers is key to the Association's success. I look forward to working with each director in carrying out our mission on behalf of all Missouri soybean farmers."

Committee assignments for the Missouri Soybean Association directors will be determined during the summer board meetings, currently being planned for July.

Lambert replaces long-time Missouri Soybean Association board member Doug Thomas of Brashear, who retired after serving the maximum number of terms representing Association members in District 2. Thomas had served on the board of directors since 2005.

To learn more about how the Missouri Soybean Association works to increase the profitability of Missouri soybean farmers through advocacy and education programs, and to join the Association, visit mosoy.org.

"As a grassroots-driven, farmer-led organization, having a strong board of volunteers is key to the Association's success."

-Gary Wheeler



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Upcoming Events & Activities

June 13 *The Farmers' Table Wine Trail Event - Hermann*

July 16 *SOYPAC Golf Tournament - Richmond*

September 25 *Foundation for Soy Innovation Golf Tournament - Jefferson City*



The Farmers' Table Wine Trail Event has been rescheduled for June 13, 2020.

For more information, visit hermannwinetrail.com.

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Test In Spring for SCN

By Linda Geist, University of Missouri Cooperative Extension Service

Test for soybean cyst nematode (SCN) in the spring before planting, says University of Missouri Extension plant pathologist Kaitlyn Bissonnette.

Data from MU researchers shows SCN field populations are becoming more virulent on commercial soybean cultivars, Bissonnette says.

SCN quickly began spreading in Missouri in the 1970s and gained a strong foothold in most of the state's soybean-growing counties by the 1990s. Easily transported by nature, cysts and eggs can be spread within a field or to new fields by soil, equipment, water or wind.

Today, it is the No. 1 soybean disease in the U.S. and Canada.

Yields drop by as much as 14 bushels per acre in infected fields when SCN reproduction is high, according to the SCN Coalition, a public-private partnership of researchers, extension specialists and industry representatives.

Populations can increase exponentially, with 100 females capable of producing 39,062 eggs after four generations in one growing season, assuming each female produces 250 eggs, only half become

female and only 1 percent of eggs will survive.

SCN is difficult to detect without testing because damage occurs to the root system before it can be seen. Symptoms include stunted plants, yellowing and yield loss. Yield loss can occur even when there are no visual symptoms, Bissonnette says.

Nematodes are becoming increasingly resistant to PI 88788, the genetic source of SCN resistance used in about 95 percent of all SCN-resistant soybean varieties.

Bissonnette suggests two ways to test for SCN. One way is to dig a month-old soybean plant, gently shake the soil from the roots and look for white females. Another is to collect soil samples for testing.

For soil testing, collect 15-20 core samples for every 20 acres. Cores should be 6-8 inches deep and an inch in diameter. Collect in a zigzag pattern and divide each field into management zones. Include high-risk areas such as the field entry, flooded areas, low spots and historically low-yielding areas. For each collection zone, mix the core samples together. Moisture content is



Kaitlyn Bissonnette (left)

important.

"It's difficult to get an egg count out of concrete or sludge," Bissonnette says.

Ideally, cores will stay intact during collection but will easily fall apart upon mixing. When in doubt, err on the side of dry.

Put samples in a labeled bag. If possible, mark down the GPS coordinates of the field where samples were collected. Send to a testing facility.

Know your baseline SCN egg count and test every three to five years, Bissonnette says. Comparing SCN egg counts tells you if your management plan is working long term.

Work with crop advisers and extension agronomists in your area to develop a management plan.

Bissonnette recommends that farmers:

- 1) test fields to know SCN egg count
- 2) rotate to resistant varieties
- 3) rotate to non-host crops
- 4) consider using a nematode-protectant seed treatment.

For more information on SCN, visit TheSCNCoalition.com.

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