Missouri Soybean Farmer

DECEMBER 2020

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INSIDE THIS ISSUE OF

MISSOURI Soybean Farmer

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« Cover Shot

Jason Jenkins captured this view from above during a day in the field with soy checkoff-supported researchers.

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

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From The Field

Notes from Missouri Soybeans' leadership team

MISSOURI SOYBEANS

I'm not only a soybean farmer. Like most of you, I have other crops and I have cattle. This time of the year, my bull is in his own pen near the front of the farm. He's a good bull, and it's good to see him there as I start each day.

Recently, he's the second bull I see each morning. The first is the bull market we've been having for soybeans. I like seeing that bull, too. This time of the year, the U.S. is the major supplier for the world soybean market, and it's exciting to see market prices for soybeans well into double digits alongside a strong harvest and biodiesel demand. We're also seeing continued churn in the global marketplace and unknowns around the future of key federal farm programs, meaning there are a lot of reasons to keep a close eye on the markets – just like we would a good bull. Our partners at USSEC share more on page 26.

We've used the term "uncertainty" more this year than most, and as we look toward 2021, I want to wish each of you an uplifting holiday season and an energized start to the new year. We have much to be thankful for, and I appreciate the support each of you continue to show the Missouri Soybean Association.

Thank you.

Ronnie Russell - Missouri Soybean Association President

As I write this column, our farm is three days removed from the successful completion of another harvest. Odds are, your farm is likely wrapping up, too. I sincerely hope this year and its harvest have treated you well.

Harvest marks the culmination of a year's worth of preparation, hard work, and satisfaction in a job well done. Just as surely, it also marks the arrival of our local seed sales force, prompting us to begin planning for a harvest twelve months away. As farmers, we know the value of planning and preparation in planting each seed come spring. As the season progresses, we find ourselves in better position when we are proactive, rather than reactionary when it comes to insects, weeds, and disease. Your soybean checkoff is no different.

For years, your soybean checkoff has been planting seeds in innovative research and market development, all the while with an eye to the "harvest" of empowering Missouri soybean farmers to reduce input costs, protect resources, and increase profitability. Our breeding program continues to make available soybean varieties and trait technologies tailored to Missouri farms, as you can see in our annual Seed Guide. Soy biodiesel, a product and industry which was born in Missouri, now provides a 13 percent price support for our beans. On-farm demonstrations highlight your diverse research portfolio, which can be found online through the Soybean Research Information Network.

As you make plans for a crop yet to come, your checkoff will be alongside planting seeds to serve and support you.

Kyle Durham - Missouri Soybean Merchandising Council Chairman

Letter from the Executive Director

It wouldn't take much to convince a lot of folks to write 2020 off at this point, or at least to wish it into the rearview mirror. This year has been one of uncertainty and stress, certainly.

This year has also been one of supreme flexibility – from addressing challenges as a result the coronavirus to shifting plans as soybean markets rose to prices we had not seen in several years. Compression in the pork and beef supply chains hit farmers directly, and so did record crop yields. We spent more time with our families and at home, and relied more than ever on technology.

Within your Missouri Soybean team, we began the year thrilled to welcome each of you into the new Center for Soy Innovation. The warm welcome to school groups, farmers and ag organizations and so many others was met with the wet blanket of reality - one week after the grand opening, we closed the doors to guests amid the health concerns surrounding COVID-19.

The response was uplifting. The people and groups we planned to host embraced online resources, from activities and research summaries to videos and a new virtual tour. And as we've found ways to bring small groups in for outdoor and distanced events, the response has been overwhelmingly positive. Thank you for that. We're incredibly grateful for the support.

When the farmers at the helm of your Missouri soybean organizations set the direction for who and what they wanted to be for the next 20, 30 years as part of developing their strategic plan, coronavirus wasn't part of the discussion. However, their vision certainly set us up for continued service – and success at the Center for Soy Innovation.

At its heart, innovation is problem solving. And we have a heck of a team here when it comes to problem solving. We take servant leadership to heart, and that means we function to address the challenges ahead for those we serve: Missouri's soybean farmers. Whether the challenges are on the farm, in the regulatory space, in grocery stores or elsewhere along the soybean value chain, we are here to serve. We look forward to continuing to serve you. Thank you for the opportunity.

I want to personally wish each of you a healthy, happy holiday season and a strong start to the new year.

God Bless.

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

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

Soybean Policy Update

To put it succinctly, rural Missourians showed how important their votes are at the polls Nov. 3. Not only did the voting go in favor of those statewide office holders endorsed by rural and agricultural groups, rural Missouri also came out ahead on the hotly contested Amendment 3.

The Missouri Soybean Association was proud to support Gov. Mike Parson, Lt. Gov. Mike Kehoe, Secretary of State John 'Jay' Ashcroft, Attorney General Eric Schmitt and State Treasurer Scott Fitzpatrick in their respective races, and to celebrate their successful campaigns following the election. Farther down the ballot, many of the candidates supported by the Missouri Soybean Association's PAC and members received good news when the votes were counted in early November.

Going into Election Day, we were watching polling closely – and pretty widely assuming that polling was off just like it was in 2014, 2016 and 2018. Saying the polling was off doesn't quite say enough about how much pollsters missed the boat in 2020.

Polling had Gov. Parson up somewhere between 6-9 points, yet he won by a landslide. Polling, at least what I had access to, suggested Amendment 3 was down anywhere from 10 to 20 points,

...continued on page 8.

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.

MISSOURI SOYBEANS

made possible by Missouri soybean farmers and their checkoff

...continued from page 6.

yet it was approved by a tight margin of about 2%.

For many, Amendment 3 was the biggest surprise on Election Day. The campaign against the amendment was highly funded, with intense statewide advertising and celebrity endorsements. The areas that largely opposed Amendment 3:

- Boone County voted in opposition to Amendment 3 with 41% yes and 59% no.
- St. Louis City, 32% yes and 68% no.
- Kansas City, 37% yes and 63% no.

With our largest population centers voting so strongly one way, it begs the question: "Can you sway the outcome with consistency in rural Missouri?" Data says you can. Look at a few rural counties voting in support of Amendment 3, although small voter count, obviously there are enough of them to overcome the populated areas:

- Moniteau and Miller County supported Amendment 3 with 64-66% yes and 34-36% no.
- Shelby, Knox and Macon averaged the same, 64% yes and 36% no.
- Newton, McDonald and Barry Counties the same, 64% yes and 36% no, give or take a percent difference.
- Stoddard and New Madrid Counties again the same, around 62-64% yes and 36-38% no.

Somewhere in the middle, we see counties like Greene, Jackson and Jefferson that are not so dominated by rural/urban stigmas. They saw a nearly even split on Amendment 3.

Looking deeper into the numbers, it's notable that the margin for the Republican candidate and sitting Gov. Mike Parson was significantly higher than the margin on Amendment 3. You know what that tells me? It says rural Missouri carried the day on Amendment 3. And for that, some of our Missouri agriculture organizations deserve recognition.

The biggest thanks goes to the team at Missouri Farm Bureau. They rallied grassroots support among their members and spread the word in many ways, from social media campaigns to educational videos.

Overall, the biggest takeaway from all this is that there's great strength in rural Missouri and Missouri agriculture. When the farmer voice is united and mobilized, it should be successful every time. Our strength is in

...continued on page 10.

Update: Dredging the Lower Mississippi

In early November, the project to deepen the lower Mississippi River hit an important milestone. The State of Louisiana completed the contract for the first phase of the federal infrastructure project, which had officially kicked off July 31, 2020.

The Cooperative Endeavor Agreement allows the Louisiana Department of Transportation and Development to use $2 million in soy checkoff funding allocated in 2019 for the dredging project. Checkoff funds are to be utilized for the planning, design and research costs associated with the next two phases, which include pipeline relocation and dredging from Mile 154AHP to Baton Rouge.

Checkoff-funded research executed by the United Soybean Board and the Soy Transportation Coalition showed that dredging the river by five feet would save 13 cents per bushel of freight while increasing the load by 500,000 bushels per ocean vessel. Those savings would bring an additional $461 million in revenue to U.S. soybean farmers.

The 256-mile stretch to be dredged runs between Baton Rouge, Louisiana, and the Gulf of Mexico. The project will be completed by the USACE and Louisiana Department of Transportation.

No dicamba may be used in-crop with seed in the Roundup Ready® Xtend Crop System unless and until approved by the U.S. EPA and the appropriate state agency for such use. As of October 12, 2020, no dicamba formulations are currently registered by the U.S. EPA for in-crop use with seed in the Roundup Ready® Xtend Crop System in the 2021 season.*

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*No dicamba may be used in-crop with seed in the Roundup Ready® Xtend Crop System, unless and until approved or specifically permitted by the U.S. EPA and the appropriate state agency for such use. As of October 12, 2020, no dicamba formulations are currently registered by the U.S. EPA for in-crop use with seed in the Roundup Ready® Xtend Crop System in the 2021 season. Current stocks of low-volatility dicamba herbicides XtendiMax® herbicide, Engenia® herbicide and FeXapan® herbicide previously approved for in-crop use with seed in the Roundup Ready® Xtend Crop System may not be used after July 31, 2020. Dicamba may harm crops that are not tolerant to dicamba. Contact the U.S. EPA and your state pesticide regulatory agency with any questions about the approval status of dicamba herbicide products for in-crop use with seed in the Roundup Ready® Xtend Crop System.

NOTICE: DO NOT APPLY ANY HERBICIDE TO SEED IN THE ROUNDUP READY® XTEND CROP SYSTEM UNLESS IT HAS A PRODUCT LABEL SPECIFICALLY AUTHORIZING THAT USE. TO USE A HERBICIDE IN ANY MANNER INCONSISTENT WITH ITS LABELING IS A VIOLATION OF FEDERAL LAW. REFER TO THE BAYER TECHNOLOGY USE GUIDE FOR DETAILS AND RECOMMENDATIONS ON USING APPROVED ROUNDUP® AND LIBERTY® BRANDED HERBICIDES ON SEED IN THE ROUNDUP READY® XTEND CROP SYSTEM.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. It is a violation of federal and state law to use any pesticide product other than in accordance with its labeling. NOT ALL formulations of dicamba, glyphosate or glufosinate are approved for in-crop use with products with XtendFlex® Technology. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED FOR SUCH USES AND APPROVED FOR SUCH USE IN THE STATE OF APPLICATION. Contact the U.S. EPA and your state pesticide regulatory agency with any questions about the approval status of dicamba herbicide products for in-crop use with Roundup Ready 2 Xtend® soybeans or products with XtendFlex® Technology.

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 dicamba. Contact your seed brand dealer or refer to the Monsanto Technology Use Guide for recommended weed control programs.

BAYER

...continued from page 8.

> *"Overall, the biggest takeaway from all this is that there's great strength in rural Missouri and Missouri agriculture. When the farmer voice is united and mobilized, it should be successful every time. Our strength is in grassroots leadership and relationships."*

grassroots leadership and relationships. Agriculture is the lifeblood of our economy and has every opportunity to be the driver in our elections.

Post-Election Election Results

As the dust settled from Nov. 3, the Missouri House and Senate met to elect their leaders for the upcoming session. The House has a Republican majority, which chose the following slate for their leadership team:

- Speaker of the House - Rep. Vescovo (R - Arnold)
- House Pro Tem - Rep. Wiemann (R - O'Fallon)
- Majority Floor Leader - Rep. Plocher (R - Town and Country)
- Assistant Majority Floor Leader - Rep. Kelly (R - Mountain Grove)
- Majority Whip - Rep. Andrews (R - Grant City)
- Majority Caucus Chair - Rep. Walsh (R - Ashland)
- Majority Caucus Secretary - Rep. Kelley (R - Lamar)

Likewise, the Democrat minority elected their House leadership:

- Minority Floor Leader – Rep. Quade (D - Springfield)
- Assistant Minority Floor Leader - Rep. Brown (D - Kansas City)
- Minority Whip - Rep. Clemens (D - St. Ann)
- Minority Caucus Chair - Rep. Burnett (D - Kansas City)
- Minority Vice Caucus Chair - Rep. Bosley (D - St. Louis)
- Minority Caucus Secretary - Rep. Bangert (D - Florissant)
- Minority Caucus Policy Chair - Rep. Unsicker (D - Shrewsbury)

The Republican Party held on to their majority in the Senate, and like the House, elected leadership from among their ranks.

- President Pro Tem – Sen. Schatz (R – Sullivan)
- Majority Floor Leader – Sen. Rowden (R - Columbia)
- Assistant Majority Floor Leader – Sen. White (R - Joplin)
- Majority Caucus Chair – Sen. Hegeman (R - Cosby)
- Majority Caucus Secretary – Sen. Riddle (R - Fulton)
- Majority Caucus Whip – Sen. Luetkemeyer (R - St. Joseph)

And the elected leadership for Missouri Senate Democrats:

- Minority Floor Leader – Sen. Rizzo (D - Independence)
- Assistant Minority Floor Leader – Sen. Williams (D - St. Louis County)
- Minority Caucus Chair – Sen. May (D - St. Louis)
- Minority Caucus Whip – Sen.-Elect Roberts (D - St. Louis).

Looking Forward

It's too soon to say what working with legislators in the Capitol during the 2021 session will look like yet. Likewise, it is unclear how Covid-19 will impact lobbying and visitors in the Capitol for lobby days. The Office of Administration is telling organizations that have space reserved to prepare for cancellations or for social distancing guidelines to affect plans.

The Missouri Soybean Association's annual meeting and lobbying day are typically held at the end of January. Your Association staff will update members, as well as others who have been involved in the past, directly and online at mosoy.org as we know more about opportunities to engage in the Capitol this winter and spring.

With all the unknowns heading into Missouri's 2021 legislative season, we do have some dates locked in for the year. Important upcoming dates for the Statehouse calendar include:

- Bill pre-filing for the 2021 legislative session begins Dec. 1, 2020.
- Jan. 6, 2021 – First day of the 2021 legislative session
- May 7, 2021 – Constitutional deadline to pass the FY2022 State Budget
- May 14, 2021 – Last day of the legislative session
- July 1, 2021 – First day of the new fiscal year
- July 14, 2021 – Last day for Gov. Parson to veto or approve legislation
- Aug. 28, 2021 – Effective date for legislation passed during the 2021 legislative session.

Rest assured, your policy team will continue working with legislators and their staff, just we have throughout 2020 and the years prior.

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.

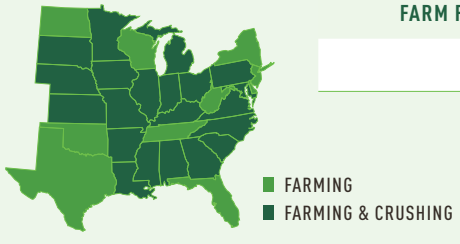
MISSOURI | ECONOMIC IMPACT OF SOYBEANS

FARM FAMILY MEMBERS	PAID JOBS	WAGES	REVENUES
5,830	16,730	$697M	$6.5B

MISSOURI RESULTS BY STAGE IN THE VALUE CHAIN	JOBS	WAGES	REVENUES*
Soybean Production	10,050	$473M	$5,343M
Soybean Delivery to crushing facility or point of export	1,340	$39M	$129M
Elevators	1,440	$43M	$96M
Crushing	1,250	$37M	$548M
Soy Oil Refining	170	$8M	$16M
Soy Biodiesel Production	1,120	$44M	$135M
Feed Milling	1,290	$49M	$61M
Selected Food Use	70	$3M	$19M

*Revenues represent the value *added* to soy at each stage. This avoids double-counting the value of preceding stages.

TOTAL NATIONAL RESULTS



FARM FAMILY MEMBERS	PAID JOBS	WAGES	REVENUES
78,000	280,000	$11.6B	$115.8B

The national soybean sector has a total impact on America's economy of almost $116 billion — the equivalent of more than 0.65% of the U.S. GDP, and up to 9% of the GDP for certain states.

- To perform this analysis, LMC International estimated direct impacts and then applied multipliers from the U.S. Bureau of Economic Analysis, which prepares them for 369 detailed industries.
- Jobs are presented on a *full-time equivalent* basis, so a seasonal worker is counted as part of a job.
- The state numbers do not add up to the totals, because several small impacts are not displayed.

Handout for Educational Purposes Only

MISSOURI SOYBEANS

NOPA NATIONAL OILSEED PROCESSORS ASSOCIATION

OUR SOY CHECKOFF™

EPA Announces 2020 Dicamba Registration Decision

The Oct. 27 announcement took place at the Cromley Farm in Brooklet, Ga., and applies to to Xtendimax®, VaporGrip®Xtra, Engenia®, and Tavium®.

U.S. Environmental Protection Agency (EPA) Administrator Andrew Wheeler announced that EPA is approving new five-year registrations for two dicamba products and extending the registration of an additional dicamba product. All three registrations include new control measures to ensure these products can be used effectively while protecting the environment, including non-target plants, animals and other crops not tolerant to dicamba.

"With today's decision, farmers now have the certainty they need to make plans for their 2021 growing season," said EPA Administrator Andrew Wheeler. "After reviewing substantial amounts of new information, conducting scientific assessments based on the best available science, and carefully considering input from stakeholders we have reached a resolution that is good for our farmers and our environment."

Through it's action, EPA approved new registrations for two "over-the-top" (OTT) dicamba products—XtendiMax with VaporGrip Technology and Engenia Herbicide—and extended the registration for an additional OTT dicamba product, Tavium Plus VaporGrip Technology. These registrations are only for use on dicamba-tolerant (DT) cotton and soybeans and will expire in 2025, providing certainty to American agriculture for the upcoming growing season and beyond.

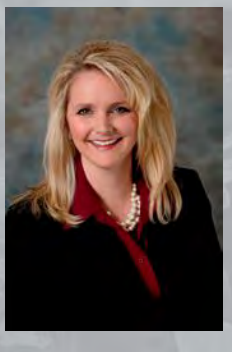
To manage off-site movement of dicamba, EPA's 2020 registration features important control measures, including:

- Requiring an approved pH-buffering agent (also called a Volatility Reduction Agent or VRA) be tank mixed with OTT dicamba products prior to all applications to control volatility.
- Requiring a downwind buffer of 240 feet and 310 feet in areas where listed species are located.
- Prohibiting OTT application of dicamba on soybeans after June 30 and cotton after July 30.
- Simplifying the label and use directions so that growers can more easily determine when and how to properly apply dicamba.

The 2020 registration labels also provide new flexibilities for growers and states. For example, there are opportunities for growers to reduce the downwind spray buffer for soybeans through use of certain approved hooded sprayers as an alternative control method. EPA also recognizes and supports the important authority FIFRA section 24 gives the states for issuing locally appropriate regulations for pesticide use. If a state wishes to expand the federal OTT uses of dicamba to better meet special local needs, the agency will work with them to support their goals.

This action was informed by input from state regulators, grower groups, academic researchers, pesticide manufacturers, and others. EPA reviewed substantial amounts of new information and conducted assessments based on the best available science, including making Effect Determinations under the Endangered Species Act (ESA). With this information and input, EPA has concluded that these registration actions meet Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) registration standards. EPA believes that these new analyses address the concerns expressed in regard to EPA's 2018 dicamba registrations in the June 2020 U.S. Court of Appeals for the Ninth Circuit. Further, EPA concluded that with the control measures now required on labels, these actions either do not affect or are not likely to adversely affect endangered or threatened species.

To view the final registration of the dicamba products, visit docket EPA-HQ-OPP-2020-0492 at regulations.gov.



"Once we receive all the labels and the team has been able to look at them, then we will discuss a path forward - if we can stick with the federal label or if there are going to be changes made. But, until we have all three labels in hand, it is very premature to make any decision at this time."

-Chris Chinn, Missouri Director of Agriculture

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Buzzing in Jefferson City

The Missouri Soybean team is showing their support for pollinators in a new way - welcoming a colony of honey bees to the Center for Soy Innovation. The bees' hive is situated amid the native plantings on the North side of the outdoor education area.

By Christine Tew

Photos courtesy of Missouri State Beekeepers Association and Missouri Department of Agriculture

The vision for the Center for Soy Innovation has always been to connect people with the many ways soybeans impact their lives. From soy-based building materials that offer benefits ranging from improved indoor air quality to reduced reliance on petroleum, to outdoor spaces highlighting farmers' work with native plantings and water-quality management efforts, the Center is a hub for all things soy and hands-on.

This fall, the Missouri Soybean team added thousands of new residents to the educational showcase in the form of a colony of honey bees.

In partnership with volunteers from the Missouri State Beekeepers Association, the Missouri Soybean Merchandising Council welcomed the colony. Missouri's soybean farmers and soybean organizations have been advocates for pollinators for many years, and bringing

them to the Center was a natural step.

More than 400 species of bees are commonly seen in Missouri, including the honey bee, also known by its scientific name: *Apis mellifera*.

The Center for Soy Innovation is located on nearly 5 acres of land on the western side of Jefferson City. The bulk of that land has been planted with native species, including many flowering plants from Missouri-based nurseries.

The bees' home is located behind the Center for Soy Innovation, below the terracing and among the native plantings installed earlier this year. The hive is near several benches and along the mulched walking trail where it will be easy for visitors to view when the Center reopens for guests.

In addition to conversations about farmers' work to support pollinators, guests can expect to learn about the relationship between pollinators and soybeans. While soybeans don't rely on pollinators as much as some other flowering plants, they can support foraging bees. Pollen substitutes, including the one available to this colony during their transition to Jefferson City, are also often made with soybean meal.

The bees moved into their new home at the Center for Soy Innovation in October.

Some day, visitors may also be able to sample honey from the hive - although that is many months away and likely dependant on COVID-19, as the Center is currently closed to visitors.

Special thanks are in order for Debra Maier and Gail Severance of the Jefferson City-based Show Me Beekeepers, and other members of the chapter, who coordinated the bees' move from the Marshall area to the Center for Soy Innovation, along with other volunteers who continue to provide guidance.

The bees made their move in October with help from those volunteers and the Missouri State Beekeepers Association.

Shortly thereafter, the bees were visited by Missouri's State Apiarist. Lee Conner, is an employee of the Missouri Department of Agriculture, who, among his responsibilities, is the point person for beekeepers. Conner inspected the hive and confirmed the health of the colony for Missouri Soybean staff.

He also shared with staff that cool weather can be especially detrimental to a newly moved hive. Conner recommended saving any work with the hive – especially removing frames or bees – for times the temperature is above 55 degrees.

Want to know more about the Center for Soy Innovation, its bee colony and how all things soy come together in your life? Explore mosoy.org or reach out to the Center directly through the Contact Us tab.

"Pollen substitutes, including the one available to this colony during their transition to Jefferson City, are also often made with soybean meal."

Curious about beekeeping or want to meet a beekeeper near you?

The Missouri State Beekeepers Association has great information online at mostatebeekeepers.org to help you connect and get started with your own bees.

Ag Crisis Hotline Now Available

Partnership with the Farmers and Ranchers Stress Alliance Network and a grant from the National Institute of Food and Agriculture is expanding the Iowa Concern Hotline into Missouri and several other Midwest states.

Missourians in crisis can take advantage of a free 24-hour hotline for stress counseling as well as information and referrals on legal, financial, crisis/disaster and personal health topics. Individuals can seek help by phone or live online chat.

Through the Farmers and Ranchers Stress Alliance Network (FRSAN), the Iowa Concern Hotline is available to residents of 12 north-central U.S. states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin.

Call 800-447-1985 or visit extension.iastate.edu/iowaconcern. Individuals can also email experts questions related to finance, legal issues, stress, and crisis and disaster. Calls, chats and emails are confidential. Language interpretation services are available.

> *"Midwest farmers and ranchers face unprecedented stress from the COVID-19 pandemic, economic uncertainty and weather-related concerns. Farmers, because of their strong and independent nature, often are reluctant to talk about these issues."*

FRSAN is funded by a grant from the USDA's National Institute of Food and Agriculture (USDA NIFA).

"Midwest farmers and ranchers face unprecedented stress from the COVID-19 pandemic, economic uncertainty and weather-related concerns," said Karen Funkenbusch, University of Missouri Extension health and safety specialist.

Mental health experts predict an increase in deaths by suicide due to the social isolation, economic stress and related factors, Funkenbusch said. "Farmers, because of their strong and independent nature, often are reluctant to talk about these issues."

Funkenbusch says friends, coworkers and family members should be aware of warning signs of suicidal tendencies:

- Talking about feeling hopeless or having no purpose.
- Talking about feeling trapped or in unbearable pain.
- Talking about being a burden to others.
- Increasing the use of alcohol or drugs.
- Anxious, agitated or reckless behavior.
- Sleeping too little or too much.
- Withdrawing or feeling isolated.
- Showing rage or talking about seeking revenge.
- Displaying extreme mood swings.

What to do if you see these signs:

- Do not leave the person alone.
- Remove firearms, alcohol, drugs or sharp objects that could be used in a suicide attempt.
- Call the National Suicide Prevention Lifeline at 800-273-TALK (8255).
- Take the person to an emergency room or seek help from a medical or mental health professional.

MU has resources to assist farmers, ranchers and their family members who may be struggling during harvest, Funkenbusch said. Visit Show Me Strong Families at facebook.com/ShowMeStrongFarmFamilies to learn more.

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

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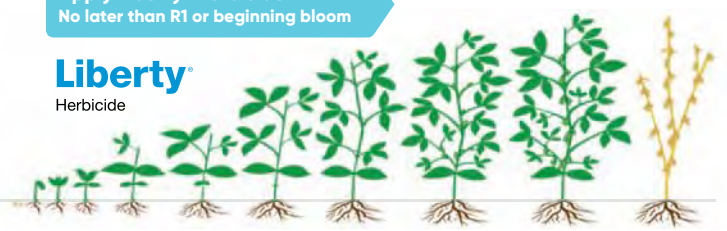

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Weed Destruction from Down Under

MU weed scientists evaluate Australian answer for combatting herbicide resistance.

By Jason Jenkins

Mill Creek Communications

For eight seasons on the Discovery Channel's popular reality show "Dirty Jobs," TV host Mike Rowe explored the country looking for people who weren't afraid to "get dirty." There's no doubt that if the show was still being filmed today, Rowe would've loved visiting the University of Missouri Weed Science research team this fall.

Rowe could have tried his hand at being the team's "soybean chaff collector," a job that requires a mask, gloves, goggles and a willingness to get pummeled point-blank by the discharge from a Class 8 combine.

"It's definitely one of, if not the dirtiest job I've ever had," says Travis Winans, a graduate student working under the guidance of MU Extension weed scientist Kevin Bradley. "It's really loud; sounds like there's an airplane turbine hooked to the combine. And it's super dusty, but it's what we need to do to collect our data."

Winans and the other MU researchers are in their second year of evaluating the efficacy of a weed seed destruction implement called the Seed Terminator. Attached to the rear of a combine, the machine's purpose is to render weed seed incapable of germination.

"Herbicide-resistant waterhemp is a major concern in Missouri, so we're looking at other weed-control options for the state's soybean producers beyond their herbicide program," Winans says. "The Seed Terminator is one of several harvest weed seed control solutions available today."

Dropping the hammer on waterhemp

Originally developed in Australia to combat herbicide-resistant Italian ryegrass, the Seed Terminator contains two multistage hammer mills. These mills are composed of both stationary and rotating component groups. During harvest, chaff from the combine's shoe load enters the Terminator's inlet chutes that feed into the mills. Flails and rotors spinning at 2,250 to 3,000 rpms force the plant material through a set of three screens, reducing it in size through four modes of action: impact, shearing, crushing and grinding.

"The objective is to damage the waterhemp seed coat to a point where that seed is no longer viable," Winans explains. "In our evaluation, when half of more of the seed coat is missing, or the seed is less than half the size of a non-damaged seed, we designate that as damaged, non-viable seed."

The MU team evaluated the Seed Terminator at four sites in mid-Missouri in 2019 and three sites in 2020. All of the sites had been in continuous soybean, though the type of soybeans varied from site to site.

"In 2019, we had two sites where herbicide-tolerant soybeans were planted, one with non-GMO soybeans and one with organic soybeans," says Winans, noting that the organic site provided the opportunity to evaluate the technology on larger-seeded weeds including velvetleaf, morning glory and foxtail. "In 2020, we returned to three of the four sites. The cooperating producer for the fourth site changed his herbicide program this year, and he didn't have significant enough weed pressure to evaluate the Seed Terminator."

At each site, a Case-IH 8250 combine equipped with a 35-foot draper header and the Seed Terminator was used to harvest soybean plots. The MU researchers took six collections from each plot. In non-treated plots — those where the Seed Terminator was not engaged — the team collected samples used to evaluate header loss, threshing loss and straw chopper discharge. In treated plots where material was directed into the Seed Terminator, an additional sample was taken from the device's discharge ports.

Capturing combine discharge is a key aspect of testing the effacacy of the Seed Terminator.

Based on initial findings from the first year of data, the Seed Terminator can deliver on its moniker: When averaged across all four sites in 2019, about 92% of waterhemp seeds that passed through the hammer mills were no longer viable and able to germinate. At some sites, the percentage of seeds damaged surpassed 98%. However, this statistic only tells part of the story.

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EDITOR'S NOTE:
This is the final 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 take a look at harvest weed seed control methods, including those being evaluated by the University of Missouri Weed Science Program.

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Many weeds, including waterhemp, begin to shed seeds before it's time to harvest soybeans. As those weed seeds drop to the ground, they enter the seed bank and have the opportunity to germinate in subsequent years. For those seeds, harvest weed seed control measures like the Seed Terminator are ineffective.

"We also sustain header loss of waterhemp seed," Winans says. "When the header comes in contact with those plants, the seed gets knocked off and never enters the combine."

The graduate student adds that even when the waterhemp does enter the combine, a percentage of the weed seed doesn't reach the hammer mills.

"In 2019, we determined that only about 72% of the waterhemp seed that entered the combine was directed to the Seed Terminator," he notes. "You're getting some threshing loss where that seed is coming out through the straw spreader and is not damaged whatsoever."

In addition to its purchase cost, which is around $75,000 to $80,000, the Seed Terminator also has operating costs. The manufacturer estimates a requirement of 80 to 100 horsepower, and the MU team's 2019 research showed an increase of 15% to 30% in combine engine load when the hammer mills were engaged. Fuel consumption also went up by 3 to 8 gallons per hour. However, effect on harvest speed was negligible.

Using the Seed Terminator in the same fields year after year would gradually deplete the seed bank and lead to less weed emergence. "If you've had historical problems with herbicide resistance, it can be something to look into," Winans says.

The Seed Terminator and other harvest weed seed control devices use mills to grind any seeds discharged in the chaff.

Weed Seed Stoppers

The Seed Terminator is not the only harvest weed seed control (HWSC) technology on the market. The Harrington Seed Destructor is another device that uses mills to grind seeds at about the same effectiveness as the Seed Terminator.

But turning weed seeds into dust isn't the only means of slowing the spread of herbicide resistance. Other HWSC concepts include narrow windrow burning, where chaff and the weed seeds contained within are consumed by fire following crop harvest; direct bale method, where chaff is baled and removed from the field; and chaff carts, which collect the chaff from the combine. Chaff dumps can be grazed before residue is burned.

Winans says that while all of these methods may have applicability for Missouri soybean producers, the biggest takeaway is that a multipronged strategy to weed management is the only way to combat herbicide resistance and avoid the yield losses that come with weed pressure.

"There haven't been any new herbicide modes of action since the 1980s, and we're getting more and more herbicide-resistant weeds," he says. "There's not one silver bullet to controlling weeds. You can't just rely on one herbicide. It takes an integrated approach."

HWSC methods are just another management tool for producers, joining crop rotation, cover crops and herbicide programs using pre- and post-emergence products with varying modes of action as means of stopping weeds from growing.

"Any tool a farmer can use to prevent weed seed from returning to the soil surface is valuable," Winans says.

> *"There's not one silver bullet to controlling weeds. You can't just rely on one herbicide. It takes an integrated approach."*
>
> -Travis Winans

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HONOR WALL

Good news from those working on behalf of Missouri soybean farmers

Missouri's National FFA Convention Results

The 2020 National FFA Convention was held virtually in late October, and included the announcement of record-breaking national membership of 760,113, representing 8,739 chapters. Of those members, 25,375 represent Missouri's 349 FFA chapters.

During convention, the Show-Me State was represented well. Congratulations are in order for many FFA members and their communities, including:

Paxton Dahmer, from the Nevada FFA chapter, was selected as the 2020-2021 National FFA Central Region Vice President. He will be part of a six-member National Officer Team, with members from Georgia, Arkansas, Illinois, California and Florida. Dahmer is a student in the University of Missouri College of Agriculture, Food and Natural Resources, where he studies agricultural education and leadership. He previously interned for Missouri Farmers Care.

Jacob Dierking, from the Santa Fe FFA chapter, was named the national winner for the diversified crop production – entrepreneurship proficiency. Agricultural proficiency awards honor FFA members who, through supervised agricultural experiences, have developed specialized skills they can apply toward their future careers. Dierking's work includes raising soybeans and corn on a combination of rented and owned land, as well as helping with his family's sweet corn business. He is a 2019 graduate of Santa Fe High School.

Jacob Dierking

Ashland FFA, Braymer FFA and Troy FFA were each recognized as a Top Ten Chapter in the Nation in the Model of Excellence division.

Thirty-three chapters received the Three Star rating, the highest chapter rating award. Special congratulations to: Ashland, Audrain Co. R-VI, Aurora, Blue Springs, Boonville, Bowling Green, Braymer, Brookfield, Carrollton, Carthage, Centralia, Chillicothe, Clark County, El Dorado Springs, Elsberry, Farmington, Higbee, Marshall, Maysville, Mexico, Monroe City, Mount Vernon, Neosho, Paris, Salisbury, Sarcoxie, Seneca, Sweet Springs, Tipton, Trenton, Troy, Union and West Plains.

Missouri also claimed the top spot for the American FFA Degree, with the highest number of recipients this year. The American Degree is the highest degree that can be bestowed on a FFA member. Fewer than one half of one percent of FFA members receive the degree. Missouri had 505 recipients of the American FFA Degree in the virtual ceremony. Four Missourians also received the Honorary American FFA Degree for outstanding service on a national level. Congratulations to Tonya Jedlicka of West Plains, John Kallash of Clopton, Randy Morris of Putnam County, and Chad Murphy of Versailles on that recognition.

This year marked the 93rd National FFA Convention, and the organization's first fully virtual event. For a full listing of convention results, visit ffa.org/2020-awards-results.

To learn more about FFA in Missouri and find a chapter in your area, explore missouriffa.org.

Rone Reappointed to USB

Missouri farmer Lewis Rone, of Portageville, was reappointed to serve on the board of directors for the United Soybean Board by Secretary of Agriculture Sonny Perdue.

Lewis Rone

Rone was one of 11 directors reappointed this year. They, along with eight newly appointed directors will be officially sworn in for service during the annual USB meeting in December. Terms are three years long.

The soy checkoff provides significant value to farmers by leveraging checkoff funds in investments and programs to build preference for U.S. soy across the country and around the world. Authorized by the Soybean Promotion, Research and Consumer Information Act, the United Soybean Board is composed of 78 members representing 29 states, in addition to the Eastern and Western regions. The number of seats on the board is determined based on bushels produced in that region. Members must be soybean farmers nominated by a Qualified State Soybean Board. Rone was nominated by the Missouri Soybean Merchandising Council, where he previously served as a district director.

The United Soybean Board's 78 volunteer farmer-directors work on behalf of all U.S. soybean farmers to achieve maximum value for their soy checkoff investments. These volunteers invest and leverage checkoff funds in programs and partnerships to drive soybean innovation beyond the bushel and increase preference for U.S. soy. That preference is based on U.S. soybean meal and oil quality and the sustainability of U.S. soybean farmers. 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.

SOY Scholarship: Apply by Dec. 6

The American Soybean Association (ASA) wants to award a scholarship to an outstanding high school senior interested in pursuing agriculture. The Soy Scholarship is a $5,000 one-time award presented to a high school senior who plans to pursue agriculture as an area of study at any accredited college or university in the 2021-22 academic year. The scholarship is managed by ASA and made possible through a grant the by BASF Corporation. High school seniors may apply online Oct. 14-Dec. 6, 2020.

"BASF is always looking for talented and enthusiastic students to apply their learning to contribute to the success of our customers. We are excited to continue our long-term partnership with ASA to award scholarships to deserving students who show a desire and passion for agriculture," said Scott Kay, Vice President of U.S. Crop, BASF Agricultural Solutions.

The scholarship is awarded in $2,500 increments (one per semester) for the 2021-22 school year. The student must maintain successful academic progress and be in good standing with the college or university to receive the full amount of the scholarship. ASA and BASF have recognized students for their hard work and interest in agriculture through the Soy Scholarship since 2008.

Final selection will be made at the beginning of January by a committee of soybean grower-leaders. The student will be notified by mid-January, with an official announcement to follow and a presentation scheduled in the spring. To learn more, visit soygrowers.com.

Update: Aquaculture in SE Asia

Growing demand for the soy produced by Missouri farmers, and farmers across the U.S., is a top priority for the soy checkoff.

U.S. soy farmers' long-term commitment has had a significant impact on aquafeeds and the use of alternative ingredients – namely soy products. The U.S. soy industry has been replacing marine ingredients for more than 30 years. It is largely due to soy that the aquafeed industry has been able to keep up with production, as soy has provided a strong basis for the replacement of marine animal ingredients.

The Missouri Soybean Merchandising Council partners with the U.S. Soybean Export Council (USSEC) to raise awareness and provide educational programs around the In-Pond Raceway System for aquaculture, as well as on market development efforts throughout the region.

USSEC's Southeast Asia aquaculture program targets commercial feed mill aquaculture formulators as a key target audience for U.S. soy products and despite the limitations caused by the COVID-19 pandemic, this team continues to work to forward the demand of U.S. Soy for aquafeeds across the region.

Addressing Misperceptions in Thailand

USSEC learned that a respected expert in Thailand was publicly stating that high levels of soy inclusion in shrimp feeds was the cause of White Feces Syndrome, which was not the experience of industry in other areas or indicated in studies of high soy inclusion done by the U.S. soy industry. Because USSEC works very closely with the aquaculture industry in Southeast Asia, it is important to address any misperception that soy is a cause of disease or negative performance. All indicators are that White Feces Disease is caused by a pathogen, not soy.

"We know that soy can be safely used at high inclusion rates, particularly with Pacific white shrimp and expect to confirm that again in this local market," says USSEC Senior Technical Consultant, Aquaculture – Southeast Asia and Thailand Lukas Manomaitis. "More competitive [aquaculture] markets and producers will seek ways to improve efficiency and profitability. Better quality feeds with better performance will require ingredients such as U.S. soy products," he says.

New Technical Approach for Vietnam's Pangasius Industry

USSEC, together with FFIC Pangasius Farm in Vietnam, conducted a feeding demonstration for pangasius advanced fingerlings in floating In-Pond Raceway Systems (IPRS) on August 27, using USSEC feed with 34% crude protein/5% fat and 28% CP/4% fat. Fish was stocked April 18, 2020 and harvested August 27, 2020 at the average size 93 gr/pcs. The feeding demo showed pangasius at 15-100 grams using USSEC feed-based technology have a good survival rate and rapid growth.

"This technology can bring fast growth, high survival rate, saving labor costs as well [as not needing] water exchange – contributing to protecting [our] water resources" said Pham Dang Khoa, FFIC technical staff.

"We plan to build more IPRS as well do more trials to find the best replicate for pangasius in IPRS here," stated Nguyen Quang Vinh, FFIC Farm Area Director.

The new approach of high-quality feed for pangasius in young stage culture opens a new trend for the development of the pangasius industry in Vietnam, increasing stability which can help to further boost the use of U.S. soybean meal. To produce feed for the demo, the feedmill bought 33,760 kg of U.S. soybean meal and worked with USSEC experts to formulate the feed diets.

To learn more work in Southeastern Asia and other regions, visit ussec.org.

The U.S. Soybean Export Council provided content for this update.

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Farmers Helping Farmers

Discover how high-quality soy produced right here in the heart of Missouri helps one fish farmer, one community and many others around the world.

By Julie Deering

While soybean harvest here in Missouri is complete when beans are either in the bin or hauled to local elevators for storage and moved by rail or barge, that isn't the end of the journey.

Their final destination is perhaps as varied as the number of soybean varieties planted in the state. Some will be used as animal feed for local pork producers, some will be processed as soyfoods and distributed to markets around the world and some will be used as aquafeeds and distributed to fish farmers.

While global aquaculture production is dominated by Asia at 89%, aquaculture plays a critical role in local economies and serves as a source of nutrition for locals from Africa to Latin America. While Africa's overall aquaculture production is relatively low at 2.7% of world production, it has seen a 20-fold increase from the 1990s to 2018. And in the Americas, Chile, Brazil, Ecuador and Mexico account for more than 80% of regional volume, contributing significantly to food security, employment and foreign currency generation, according to the Food and Agriculture Organization (FAO) of the United Nations.

Let's go to Mexico's state of Michoacán (just west of Mexico City) where Manuel Sarmiento is is the co-owner of Truchas Sustentables, a local fish farm and processing company.

"It all started with trout," Sarmiento explained. "We were looking at alternatives to cutting down the trees here. About three or four years ago, we started a fish-processing facility to add value to our own business and to make our trout products more accessible to the average person."

Today, Truchas Sustenables produces about 20 tons of trout annually, according to Álvaro de Tomás, one of the company's production managers. The company's products can be found in stores such as City Market, H-E-B., Soriana, MeatMe and AquaMart.

"The trout you find in City Market was literally taken out of the water and processed yesterday, and you are eating it today at City Market," de Tomás said. "That is how fast the process is. Our product is 100% natural, and we are selling everything we produce."

Their product portfolio includes cold and hot smoked trout and trout paté. De Tomás said they are also about to launch Vizcaina trout, made with a red sauce of pureed onions and choricero pepper.

"We've found that people prefer our packaged products — they are already filleted and boneless — rather than picking the bones out of the fish on their plates," added Sarmiento, who relies on U.S. soy as a food source for the trout.

He shared that U.S. Soy is a BAP (Best Aquaculture Practices) certified sustainable protein source. BPA, a part of the Global Aquaculture Alliance, ensures aquaculture is done responsibly through a third-party certificate program that focuses on four areas of sustainability: environmental, social, food safety and animal health and welfare.

Increasing populations and demand for protein drive demand for soy in aquaculture, including for trout production in Mexico.

"Truchas Sustenables has BAP certifications, and today we have a 98-score in Costco audits, our main customer," Sarmiento shared. "The BAP certification is a system in which we assure sustainability throughout our entire system from breeding, gutting, slicing and packing, to loading."

De Tomás added that all the fish they process today is domestically grown.

"I wish I could say that for all the trout we see in supermarkets," he said.

Tremendous Growth Potential

From 2000 to 2017, aquaculture production in Mexico increased from 59,434 tons to 268,200 tons, achieving a 9% annual growth rate, according to FAO.

During that same time, the country's population saw a 3.8% growth rate, increasing from more than 98 million people to more than 124 million people. That number is expected to reach 141 million by 2030.

> *"Expanding consumption would directly translate to increased demand for U.S. Soy."*
>
> -Carlos Salinas

While Mexico's aquaculture producers grow enough fish to meet the demand of its growing population through 2030, FAO estimates that supplies would be insufficient if per capita fish consumption increased to the world average, 19.9 kg or about 43 pounds.

Carlos Salinas, who serves as regional director of the Americas for the U.S. Soybean Export Council, reported that U.S. Soy has the highest market share among countries between Mexico and Colombia, primarily due to proximity and the logistical infrastructure in place to move products in and out of Mexico.

Because the U.S. already commands near 100% of the market share when it comes to soy imports, Salinas said the goal needs to be centered around expanding consumption.

"Expanding consumption would directly translate to increased demand for U.S. Soy," he said. "With fish feed, rations can be as high as 50% soybean meal, and expanding consumption of farm-raised fish would mean more demand for U.S. Soy."

In 2020, demand for aquafeed in Mexico was targeted at 439,000 tons, according to the National Council of Manufacturers

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of Balanced Feeds and Animal Nutrition. With an inclusion rate of soybeans at 25%, that's 120,000 tons. Salinas added that because U.S. Soy has earned 93% of the market share, that's 112,000 tons going right now solely to aquafeeds in Mexico.

While that's only 1.3% of Missouri's soy crop, there's growth potential here.

FAO researchers believe that given Mexico's land area, inland water surface area, coastline length, water resources and population, its aquaculture industry has tremendous growth potential.

Cargill also took notice of this growth potential back in 2014, investing $7.8 million in its 60,000-ton fish feed plant in Tehuácan, the second largest city in the state of Puebla. The expansion brought improved performance and enhanced quality for the feed, not to mention it was able to supply 5,000 tons more feed each month to aquafarms.

In addition to Cargill, recently the company Vimifos, owned by ADM, also built a new plant located at Villahermosa, Tabasco, for the production of aquaculture feeds and thus improve the supply of the southeastern region of the Mexican Republic where aquaculture development has gained strength in the last years, thus allowing a better service to the market.

Sustainability Starts on the Farm

While Truchas Sustenables is proud of its BAP certifications and audit scores, it all starts right here on the farm.

"For generations, we've been practicing sustainability, for our own benefit but what we're learning is that sustainability doesn't stop at the farm gate," said Meagan Kaiser, who is a fifth-generation Missouri soybean grower. "It's really just the very beginning of the value chain,

The U.S. Soybean Export Council coordinates efforts globally to grow demand and preference for U.S. soy.

and if everyone at every stage of the process works to be more efficient with their inputs, we can create big change."

Kaiser and her husband, Marc, are really focused on using data and technology to make the best decisions, whether it's seed choice, soil sampling, or fertility and trying to improve the soil structure and biological activity.

"While we are covering thousands of acres, we are really managing each acre individually, today we have a better handle on how each acre performs and what it needs to improve," she said.

As an example, the Kaisers are doing some on-farm research, testing copper's connection to better stalk strength for both corn and soybeans.

"We wanted to see if our fields could benefit from it," she explained. "It's not easy to apply in a small area, but we put out a 10-acre plot to see if it made a difference and if there's the potential for us to use it on more acres for an improved crop."

Kaiser added that farmers are forever scientists – researching, trialing, evaluating and adjusting.

"U.S. farmers do a great job of growing and producing food, and 'sustainability' on the farm is not a one-size fits all approach," she said. "It's a process of continuous improvement, and we've got a great story to tell."

Sustainability is very much a domino effect.

Kaiser said the past few years have been tough on Missouri farmers, between

"When you hear about what's happening in the news, you don't always think about the people... but it's really farmers helping farmers, worldwide."

-Meagan Kaiser

weather events and trade disputes.

"One of the things that's kept us motivated on our farm is that sense of contributing to the broader good," she said. "When you hear about what's happening in trade news, you don't always think about the people… but it's really farmers helping farmers, worldwide.

"Our farmers here in the U.S. are providing a high-quality product that can not only be used as a feed source for other producers — fish or livestock — but adds to their sustainability story because of our practices."

And in the Michoacán region, Truchas Sustentables is making a difference.

"There are several trout farms in the area," said de Tomás. "Before we started Truchas Sustentables, they struggled to secure customers. Truchas Sustentables has the best processing, and we guarantee product will have the best quality at the best price. Now, securing customers and having a market is the easy part."

Today, Sarmiento, the crew at Truchas Sustentables and the local trout farmers aren't clearing the land. They're now able to spend time and resources not only defending the local forests but also working to reforest it.

A Closer Look at Demand

The Americas Region represents a demand base of 7.3 million metric tons of soybeans, 10 million metric tons of soybean meal and 2 million metric tons of soybean oil.

Like many other countries, Mexico has been devastated by COVID-19, said Carlos Salinas, USSEC regional director for the Americas.

"Because many could not work from home or did not have the means to stay home, Mexico was one of the hardest hit countries around the world with more than 90,000 deaths," he said. "And like many other nations around the world, its currency depreciated.

"This makes it hard to sell higher priced raw materials."

However, Salinas said he does not expect it to hinder demand for soybeans. On Oct. 22, private exporters reported export sales of 5.6 million bushels of soybeans for delivery to Mexico during the 2020/21 marketing year.

For the 2020/21 marketing year, analysts expect U.S. soybean exports to Mexico to climb to 6.1 million tonnes, an increase of 100,000 tonnes.

In the 2019/20 marketing year, the U.S. exported 1.6 million metric tons of soybean meal to Mexico, as well as 110,000 metric tons of soybean oil.

To further support the demand for U.S. Soy in the region, four new companies signed the Soybean Sustainability Assurance Protocol (SSAP) license agreement, bringing the total to eight in the region. Salinas pointed out that one of these is the largest crusher, RAGASA.

MISSOURI SOYBEANS

Winter Soybean Meetings
Going Virtual - Save the Date

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*
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*

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Evolution in Sustainability

Science, data and knowledge will drive modern, "smart" sustainable agriculture.

By Darrick Steen

As we roll into 2021, conversations around sustainability have taken on new terminology, including regenerative, climate and carbon smart agriculture. Regardless of what we call it, farmers have a history of being remarkable innovators, putting the latest science, data, precision technology and principles of environmental sustainability to work. And while it's too early to know exactly what actions and impacts this evolving area of sustainability may drive, the changing conversation toward market-based approaches certainly sets the stage for new opportunities.

Darrick Steen speaking at a 2019 field day focused on soil health and water quality.

I might be biased, but I'd argue that soybean farmers are at the front of that pack for applying that leading-edge mindset to both production and uses for soy. From coming together in the 1960s to work on practical education to supporting research into everything from soil health and genetics to air and water quality, Missouri's soybean farmers and their soy checkoff have long had the pedal (biodiesel, of course) to the metal.

That proactive approach reveals itself in strategic partnerships and programming that directly impacts farmers' bottom line. It also supports their freedom to operate while striving to integrate sustainable practices into the farm's long-term agronomic and economic goals. In practice, that proactive approach looks like:

Research into nutrient management and cover crops. Our investment in the MU Certified Strip Trial Program is providing on-farm and field-scale research guided by university researchers to provide growers with nutrient and yield data they can use to guide decisions and evaluate nutrient practices.

Leadership around water quality. The Edge of Field Water Quality Monitoring Program is a proactive effort we are leading with support from the Missouri Department of Natural Resources to document farmers' water-quality improvements. The monitoring includes measuring nutrient and sediment runoff directly off farmers' fields to better quantify the effectiveness and benefits of soil and water conservation practices.

Partnership on soil health. Missouri Soybean is a proud partner and supporter of the nationally recognized Soil Health Partnership (SHP). SHP is a farmer-led, multi-state, on-farm research and education program directed by the National Corn Growers Association. The SHP has more than 130 working farms in Midwest states collecting field data on soil health practices such as cover crops, helping further define the science and impact of soil health.

Support for improving biodiversity and protecting pollinators. In this space, Missouri Soybean is leading by example by using its Bay Farm Research Facility in Columbia and Center for Soy Innovation in Jefferson City as training grounds for applied research, demonstration and educational programs benefiting farmers and the general public. We have worked with the Missouri Department of Conservation and other conservation partners to develop hands-on experiences to showcase the soil, water and wildlife management efforts farmers are undertaking across the state.

Knowledge, data and collaboration will always be powerful tools, and they will be key to future gains and success for Missouri soybean farmers. No matter what obstacles farmers face in the future, the targeted investments being made by Missouri soybean farmers and their checkoff will keep Missouri farmers on the leading edge of innovation and market opportunities.

Darrick Steen serves Missouri's soybean farmers as director of environmental programs.

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