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COVER STORY

The Tri-State Fertilizer Recommendations were first introduced in 1995. This means that some farmers weren't even born when they were created. With that in mind, Steve Culman, a researcher at The Ohio State University, took on the challenge of updating the recommendations for Ohio with funding from the Ohio Soybean Council and soybean checkoff. The new recommendations are now available. Learn more on page 20.

Perspective



Ryan RhoadesOhio Soybean Association President
Marion County soybean farmer

Living in Dynamic Times

I'm starting to get tired of writing and saying the word 'unprecedented.' It's easy to get wrapped up in everything that's happening in the world and lose sight of what's most important to you and your family. I have to continually remind myself to look for the opportunities in every challenge. Yes, many of the things we're experiencing right now are unprecedented, but that doesn't mean we can't learn and grow from them. Agriculture is dynamic and will adapt and keep moving forward.

One way that we've adapted during this time is by hosting a virtual farm tour for our legislative leaders. Each year in March, your Ohio Soybean Association leaders travel to Washington, D.C., to ensure our representatives know your priorities. Due to COVID-19 restrictions we were unable to take that trip, so instead we brought them to our farms virtually.

OSA Chairman, Scott Metzger, showed his equipment and walked Congressional and Ohio Statehouse staff and legislators through the technology he uses in his tractor and talked about the many uses of soybeans. This opportunity also allowed OSA to voice our positions on vital issues such as trade.

I also encourage each of you to see pages 8 and 13 for additional information about current COVID Relief Packages related to agriculture. There are multiple programs and billions of dollars available to you, please know what your options are and deadlines to ensure you can take advantage of them.

Here in the state, bills have started moving again. One of them, House Bill 499, had a hearing in mid-May and OSA provided testimony in support. This bill will create a fuel quality standards program that Ohio counties could choose to implement. See page 5 for more on this bill.

And as always, if you aren't already a member of OSA, please join us! Visit **soyohio.org/membership** to learn more.

Ryan Rhoades
OSA President
Marion County



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hings in the state legislature slowed during the beginning of the COVID-19 crisis, but starting in late May, legislators returned to Columbus to commence their work again. As work in the Statehouse ramps up, keep an eye on the following legislation that has the potential to impact soybean farmers.

House Bill 499 (Fuel Quality)

The first hearing on this bill was held on May 19. This bill would create a fuel quality standard program that Ohio counties could choose to implement. Brigid Kelly (D-Cincinnati), one of the bill's sponsors, said in her testimony, "Fuel quality is an issue of consumer protection. Contaminated gas can cause serious damage to vehicles and can cost thousands of dollars to fix. Ohioans deserve access to safe, high quality fuel for their vehicles. In short, we want people to get exactly what they are paying for at the pump."

Senate Bill 159 (Beginning Farmer Tax Credit)

This bill sponsored by Senator Bob Peterson (R-Washington Court House) would create tax incentives for new and beginning farmers. It will provide an income tax credit for beginning farmers who attend a financial management program, and an income tax credit for individuals or businesses that sell or rent farmland, livestock, buildings, or equipment to beginning farmers. It is the Senate version of House Bill 183 sponsored by Rep. Susan Manchester (R-Waynesfield) and Rep. John Patterson (D-Jefferson).

A hearing was held on the bill on May 13, and Ohio Soybean Association (OSA) At-Large Young Leader and Delaware County soybean farmer Trish Cunningham said in her testimony, "This bill helps beginning farmers build equity, while also incentivizing landlords and/or farmers to lease or sell their property to new farmers. This could work well for farm families, as an aging generation looking to retire from their career can pass it on to someone to continue the legacy. In the end, farmers are caretakers from one generation to the next. We never really own anything."

House Bill 485 (CAUV Renewals)

Introduced by Representatives Gary Scherer (R-Circleville) and Jason Stephens (R-Kitts Hill), this bill would remove a requirement that owners of farmland enrolled in CAUV must file a renewal application each year in order to remain in the program.

OSA President and Marion County soybean farmer Ryan Rhoades submitted written testimony in support of this bill and said, "This bill would make it easier for farmers to stay enrolled in the CAUV program. It will help streamline the process and allow farmers to spend less time on paperwork and more time in the fields. Instead of filling out and turning in a CAUV renewal application every year, owners of agricultural land would simply have to submit documentation on the annual gross income of the land to their county auditor every year. It will also lower the risk of landowners losing CAUV status for a minor lapse in reregistration."

House Bill 476 (Eminent Domain)

This bill seeks to change the process by which landowners can protest an eminent domain claim on their land to protect the needs of property owners and public benefit. The new legislation would allow landowners to go to the local government — the board of trustees or city council — with their complaints. It also gives the local government the power to veto the property taking.



OSA Hosts Virtual Farm Tour for Legislators

ach year, a group of soybean farmer leaders from across the state put down their seed, step out of the tractor, put on their suits and head to our nation's capital to advocate congressional members on issues relating to soybeans and soybean farmers on behalf of the Ohio Soybean Association (OSA).

Typically, they meet with their elected officials and staff in offices that are just a little too small or in the halls of Congress. This year, because of the COVID-19 restrictions, OSA did things a little differently. Because there are so many important issues that need to be at the forefront, including trade and biodiesel, OSA brought the farm to elected officials, inviting not just Congressional staff in D.C., but Statehouse staff and legislators to a virtual farm tour. This is the first time that OSA has ever hosted virtual farm tours with elected officials. State legislators and staff toured on a different day than Congresspeople to address the different issues affected by state and federal law.

The tours took place in early May on Scott Metzger's farm in Ross County. Unfortunately, due to wet weather, he was unable to take the legislators into the field, but he was able to show the equipment he used and answer questions from the audience.

"We figured that almost everyone is having to meet virtually right now so why not try it with our representatives since we can't meet with them in person?" Metzger said. "It's not often that you can corral that many politicians



and get them out to a farm so I thought this was a unique opportunity to show an Ohio farm and advocate for Ohio soybean farmers in a way that OSA has never tried before."

Metzger is used to giving virtual farm tours — he gives them twice a year to high schoolers for the Ohio Soybean Council and soybean checkoff's GrowNextGen K-12 education program. Throughout the OSA tour, Metzger showed the planter and seed he uses and talked through the technology in his tractor. He illustrated the lifecycle of a soybean, from planting to harvest, and what soybeans can be used for after they are harvested.

This virtual farm tour was an opportunity to give legislators and staff who normally would not be able to visit a farm a firsthand experience of what soybean farmers do during the planting season. This was especially important at the time because of the impact of COVID-19. Farmers were still working hard either in the field or preparing for the planting season while most of the

In early May, Ross County farmer Scott Metzger hosted a virtual farm tour with congressional and Statehouse representatives. It was too wet to plant so Metzger discussed planting, harvest and everything in between.

•••••

country was shut down. Participants included both staff and legislators from Republican and Democratic offices representing rural and urban areas.

With meetings for the American Soybean Association and OSA turning into videoconferences for the foreseeable future, virtual farm tours might continue in the short term. Participants were actively engaged with Metzger and had questions for him throughout the tour.

One congressional staff member asked what Congress can do to continue to support soybean farmers. Metzger replied, "Keep focusing on trade and making sure that everyone abides by what they were going to with China and the trade deal."

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he American Soybean Association (ASA) was pleased to see the U.S Department of Agriculture (USDA) announce a final rule updating and modernizing its biotechnology regulations under the Plant Protection Act. The Sustainable, Ecological, Consistent, Uniform, Responsible, Efficient (SECURE) rule significantly updates USDA's plant biotechnology regulations for the first time in three decades, according to Secretary of Agriculture Sonny Perdue.

The new process established by this rule is expected to lead to lower regulatory costs and timeframes for the development of new plant varieties for developers, significantly granting soybean growers quicker access to more affordable bean varieties incorporating a broader array of innovations.

"We are pleased with USDA's final rule streamlining the regulatory process for low-risk biotech crops to come to market," said Magnolia, Kentucky, soy grower Caleb Ragland, who chairs ASA's Regulatory Committee. "By establishing a common-sense regulatory process to ensure new biotech plants varieties are reviewed quickly with predictable timelines and allowed to go to market if

they pose no risk, soybean growers can remain efficient and competitive through this continued access to innovation."

USDA's Animal and Plant Health Inspection Service (APHIS) stated in the announcement of the final rule that it, "provides a clear, predictable, and efficient regulatory pathway for innovators, facilitating the development of genetically engineered organisms that are unlikely to pose plant pest risks."

ASA has advocated for improvements to make the regulatory process transparent, less cumbersome, based in sound science, and in a way that helps farmers do their jobs more efficiently and sustainably.

COVID Relief Packages Related to Ag

Coronavirus Food Assistance Program (CFAP), USDA's \$16 billion COVID-19 relief package for agriculture. CFAP payments are available for eligible producers who have suffered a 5% or greater price decline from mid-January to mid-April 2020 because of the COVID-19 pandemic, and who are facing increased marketing costs for inventories. Sources of funding for CFAP are:

CARES Act: \$9.5 billion in appropriated funding that compensates farmers for losses due to price declines that occurred between mid-January 2020 and mid-April 2020 and for specialty crops for product that was shipped and spoiled or unpaid product. This payment rate for soybeans is \$0.45/bushel.

Commodity Credit Corporation Charter Act (CCC): \$6.5 billion to compensate producers for losses due to on-going market disruptions. This payment rate for soybeans is \$0.50/bushel.

Paycheck Protection Program: U.S. Congress allocated up to \$650 billion for the Paycheck Protection Program (PPP), administered by the Small Business Administration (SBA). The program was available to American companies who qualify, including farmers and ranchers, and designed to provide a direct incentive for small businesses to keep their workers on the payroll. ◆

To view a webinar covering these programs from The Ohio State University's Ben Brown, visit **soyohio.org/HereWeGrow**.

8—Ohio Soybean News July-August 2020



MAINTAINING OUR REPUTATION TO DELIVER

Whether shipping by river, road or rail, the soy checkoff is committed to ensuring America's infrastructure is a significant advantage for U.S. soybean farmers. We're looking inside the bean, beyond the bushel and around the world to keep preference for U.S. soy strong. And it's helping make a valuable impact for soybean farmers like you.

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





How to Engage Elected Officials on Social Media

In 2020, elected officials are more accessible to their constituents than ever before. Calling and writing letters or emails are all excellent ways to interact with them, but social media offers a simple and effective way to stay up-to-date on their activity while also voicing your own opinion. In fact, a report from the Congressional Management Foundation indicates that as few as 10 social media posts to a member of Congress is enough to catch their office's attention.

According to Phone2Action, 94 percent of Ohio state legislators are on Twitter. Senator Rob Portman is one of the most active legislators on Twitter and Rep. Jim Jordan is one of the most followed legislators in Congress according to Tweet Congress. The people who represent Ohio are on social media — now it's up to the constituents to take advantage of that direct line of communication.

Here are a few tips to make sure your interactions with elected officials are as impactful as they can be.

Follow

First things first, follow legislators and other elected officials on social media. Most have at least a Twitter profile and Facebook page. You can find your federal, state and local representatives and their social media handles here: https://www.usa.gov/elected-officials. You can also engage with larger groups like Ohio House Republicans (@OHRGOPCaucus on Twitter) or the Senate Ag Committee Democrats (@SenateAgDems on Twitter).

Monitor topics your officials are currently engaged in, introduce yourself, and present a perspective — don't forget to tag their handles in posts and images.

Use Your Network

Social media isn't just a place to interact directly with your elected officials. You can also spread awareness to your friends



and followers about upcoming legislation and other government action to either support or oppose. Encourage your following to become engaged with their own elected officials — this amplifies the message that you want to send.

Run Polls

Facebook and Twitter both have options to poll your friends and followers. An unofficial straw poll can help build a case when interacting with legislators on social media. After the poll ends, share the results with your officials by tagging them in the post. The results from your poll helps back up your argument with data.

Ask Questions

It might seem obvious, but the best way to illicit a response from someone on social media is to ask a question. Questions make it easier for elected officials and their staff to directly respond to your concerns. If you do not ask a question, whoever is operating the social media account may only "like" your post to signal that they've seen it, but asking a question requests a direct answer.

Stand Out

Another way to make sure your posts are seen is to add a visual element. It doesn't have to be anything fancy — a simple photo or video of you or your farm will do. If your visual element includes more people than just yourself, that signals that there are more people who share your opinion.

Twitter vs. Facebook

Twitter and Facebook serve two different purposes in the social media world. If you plan to write a short message, Twitter is the way to go. It is also easier to interact directly with people on Twitter. Facebook allows for longer messages and is more of a place for elected officials to talk about things happening in their districts and share events that they are hosting or attending. •

Are you on Facebook or Twitter? Follow us on Twitter (@OhioSoybean) and Facebook (facebook.com/OhioSoybean).



The Field Leader program from the Ohio Soybean Council and the soybean checkoff keeps you informed about the latest technologies, trends and research in the field, all in an effort to keep your operation growing forward.

See everything we're doing to keep you at the forefront of progress at OhioFieldLeader.com.

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Know the Signs and Take Action — Managing Farm Stress and Anxiety

Ryan Rhoades, OSA President and Marion County soybean farmer

armers are really good at fixing things. We fix equipment that breaks, we adjust our marketing plans as prices fluctuate, and we plow through unpredictable weather. Like our parents taught us, we show our children how to be self-sufficient and to solve problems quickly and efficiently.

That said, I know we would all be willing to lend a helping hand to help our friends and neighbors. There are challenges we can't, and shouldn't, face alone.

Anxiety. Stress. Depression. No one likes to admit they struggle with these

things, but it's important to know the warning signs that you or someone you love needs a little extra help. Agriculture has had a tough couple of years and farmers across the country are reporting that their stress levels are very high.

If you or a loved one is experiencing the following warning signs, please take action.

- ▶ Change in routines or social activities
- Decline in the care of domestic animals
- Increase in illness or other chronic conditions
- ▶ Increase in farm accidents

- Decline in appearance of the farmstead
- ▶ Signs of stress in children including struggles with school
- Decreased interest in activities or events

It's okay to seek support from trusted friends, religious leaders, online resources, and professionals. No one should have to suffer from unmanaged stress and anxiety alone. And remember — there is not a more valuable asset to your family, friends, and farm operation than your health and well-being.

MENTAL HEALTH RESOURCES

CRISIS TEXT LINE

Help is available 24/7 from trained crisis counselors with this free, confidential service by texting 4HOPE to 741741.

MENTAL HEALTH AND ADDICTION SERVICES

Find resources from the Ohio Department of Mental Health and Addiction Services at mha.ohio.gov, including a database of mental health providers across the state.

OSU: ADDRESSING AG CHALLENGES

Visit u.osu.edu/2019farmassistance/home for resources for both farmers and those who serve the farming community.

OHIO DEPARTMENT OF AGRICULTURE

ODA has your back when it comes to farm stress. Check out the Department's Got Your Back portal for helpful resources and means to seek help:

agri.ohio.gov/wps/portal/gov/oda/gotyou

UPPER MIDWEST AGRICULTURAL SAFETY AND HEALTH CENTER

UMASH Mental Health Resources can be found at umash.umn.edu/stress.

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USDA Now Accepting CFAP Applications Through FSA Offices

'n early June, USDA began accepting applications for its Coronavirus Food Assistance Program (CFAP), which provides direct payments to producers of soybeans and other agricultural commodities to offset impacts from the COVID-19 pandemic. The application and a payment calculator are now available online along with a list of updated FAQs on farmers.gov. Growers should apply through their local Farm Service Agency Service Center. While USDA Service Centers are open for business by phone appointment only, FSA is working with farmers by phone and using email and online tools to process applications.

Applications will be accepted through August 28, 2020. Through CFAP, USDA is making available \$16 billion for vital financial assistance to producers of eligible agricultural commodities who have suffered a 5% or greater price decline from mid-January to mid-April 2020 because of the COVID-19 pandemic, and who are facing increased marketing costs for inventories. That assistance includes livestock producers who have an ownership interest in eligible livestock that have suffered a 5% or greater price decline as a result of the COVID-19 pandemic and face additional significant costs in marketing their inventories due to unexpected surplus and disrupted markets.

A complete list of eligible non-specialty commodities and the CFAP payment rates can be found **farmers.gov/cfap/non-specialty**, and additional details on the livestock, dairy, and other CFAP components can be found on **farmers.gov**.





ADVOCATING FOR YOUR BUSINESS

Ohio Farm Bureau advocates for agriculture with legislators, regulators, in the courts and with the media. Farm Bureau's position on issues works through a grassroots process that starts with the county Farm Bureau, then state and ends with the American Farm Bureau in Washington D.C.



PROTECTING WHAT MATTERS MOST

Through our partnership with Nationwide® members can access insurance and financial services products that protect their families, homes and businesses.



SHAPING YOUR FUTURE WORKFORCE

Ohio Farm Bureau Foundation created ExploreAg to start recruiting a workforce the future agriculture industry needs by encouraging young people to consider a career in the food, farm and fiber industry.



NETWORKING WITH PEERS

The connections Farm Bureau members make through membership, events and participation can last a lifetime.



MONEY SAVING BUSINESS SOLUTIONS

Members save by accessing our Health Benefits Plan, Workers' Comp group rating program, energy program, and Nationwide® Insurance products and services, plus much more. Members save on brands like Ford, John Deere, Case and CAT to name a few.



MARKETING AND POLICY INSIGHTS

Farm Bureau members get unique policy and marketing insights from a network of professionals.

If you're a member, thank you. If you're not yet a member, join us. Visit OFBF.org.





Studies Show Positive Economic Impact of Soybean Industry and Checkoff Investments



he National Oilseed Processors
Association (NOPA), a trade
association representing
owners/operators of oilseed crush
facilities, released the results of a new
study, the Economic Impact of U.S.
Soybeans & End Products on the U.S.
Economy, that examines the value of
the American soybean industry. This
work is the result of a partnership
between NOPA and the United
Soybean Board (USB) and soybean
checkoff.

The 31-page study analyzes the soybean value chain's impact to the U.S. economy, based on data from crop years 2014/15 to 2016/17. As highlighted in the report summary, during this period:

- ▶ The total economic impact on the U.S. economy from the soybean sector averaged \$115.8 billion.
- ▶ The soybean sector supported an average of 357,000 people, comprising 280,000 paid, full-time equivalent jobs as well as an additional 78,000 family members, beyond growers themselves, who support and are supported by soybean farmer operations.

▶ The total wage impact of the sector averaged 411.6 billion.

Economic impacts highlighted are quantified in terms of revenue, wages, jobs, and number of people dependent on the sector — all focused on the production, distribution and use of soybeans, and soybean products, spanning across the value chain. The study also includes one-page summaries for 39 key states where the soybean industry primarily operates. For Ohio, the economic impact is approximately \$6.5 billion.

"This highlights how important our industry is to the American economy, and will help us educate business leaders, policy makers, teachers, and other influencers at the local, state, and national levels," said Ohio Soybean Council (OSC) Chairman Bill Bateson, a soybean farmer from Hancock County.

A separate economic impact study conducted by Cornell University economists looked at roughly the same period, between 2014–2018, to determine the impact of the soybean checkoff. The results estimate that for every dollar

invested in the checkoff, farmers received \$12.34 in added value.

"The Ohio Soybean Council board, which manages soybean checkoff dollars in the state, has been very diligent to ensure we're investing wisely in programs that will provide a return," said Bateson. "Our priorities are to expand markets, drive innovation, and build understanding in order to make Ohio farmers more profitable."

Examples of priority investments in Ohio include the recently opened Airable Research Lab, OSC's in-house lab that focuses on developing new uses for soybeans, and the GrowNextGen program to educate teachers and students about modern agriculture. Additionally, OSC works extensively with researchers at The Ohio State University to build better agronomic knowledge and practices.

To learn more about how your soybean checkoff dollars are being invested in Ohio, visit soyohio.org/ HereWeGrow.



OHIO | ECONOMIC IMPACT OF SOYBEANS

FARM FAMILY MEMBERS	PAID JOBS	WAGES	REVENUES
5,275	12,780	\$603M	\$6,463M

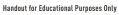
OHIO RESULTS BY STAGE IN	THE VALUE CHAIN	JOBS	WAGES	REVENUES*
	Soybean Production	7,570	\$423M	\$5,557M
	Soybean Delivery to crushing facility or point of export	1,330	\$40M	\$135M
	Elevators	1,050	\$32M	\$75M
	Crushing	1,220	\$37M	\$393M
000	Soy Oil Refining	240	\$12M	\$36M
	Soy Biodiesel Production	290	\$11M	\$35M
	Port	_	_	\$15M
	Feed Milling	820	\$36M	\$44M
	Selected Food Use	250	\$12M	\$91M

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

TOTAL NATIONAL RESULTS



- 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.
- \bullet The state numbers do not add up to the totals, because several small impacts are not displayed.



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July-August 2020 Ohio Soybean News—15



Soil Moisture and the Weather

By Dusty Sonnenberg, CCA, Ohio Field Leader

here is an old saying that "drought begets drought".
Aaron Wilson, OSU Extension Climate Specialist explains that soil moisture can have an impact on both temperature and precipitation.

"When we get into weather patterns of dry weather and drought conditions, and it seems like the pattern continues, the level of soil moisture plays a role in that," said Wilson. "The same applies when we get in a wet pattern, and it just keeps raining. The level of moisture in the soil can impact both the precipitation and temperature."

"This past winter in Ohio was the 5th warmest on record since 1895 looking at the period of December through February. It was also the 22nd wettest," said Wilson. "Relatively warm and wet describe how the spring of 2020 began as well. March was the 11th warmest, especially when you factor in overnight

lows, and it was the 15th wettest on record statewide."

Geographically, there are differences across the state. In the spring of 2019, Northwest and Western Ohio experienced continuous rainfall. "May of 2019 had anywhere from 20-26 days with some measurable amount of rain," said Wilson. Things then began to change. By the end of the growing season, parts of western and southwest Ohio were in a moderate drought.

Precipitation was variable in the spring of 2020. "There was a stripe across the center of the state that was well above average for rainfall in March," said Wilson. "In some places it was over 6 inches above average. However, northwest Ohio as a whole had average precipitation in March. Southern Ohio also had average precipitation going into the month of April."

April was a month of changes. "Early season soil temperatures were 10 degrees above average going into the month.

April then experienced temperatures 4-8 degrees below average, with substantial freeze events going into May," said Wilson. "That cool down led to cooler soil temperatures."

Different parts of the state experienced different spring planting



conditions. "It was dry in April and early May in parts of Northwest Ohio. Looking specifically at Henry and Wood Counties, farmers were fortunate it was relatively cool," said Wilson. "If they had experienced warmer temperatures, or if the same pattern had occurred in July, it may have led to drought in those areas."

Using the lines drawn by Interstate Highways make an easy way to define regions of the state. "Looking at the last 30 days, South of I-70, or Northwest of I-71, or Southeast of I-71 each had different conditions," said Wilson. "Northwest of I-71 has been relatively dry, and South of I-70 and Southeast of I-71 has been wetter than average, and the planting progress reflects that."

As the calendar turns to the summer and early fall, soil moisture levels and a summer pattern will most likely tell the story. "Dry soils and warm air masses usually lead to drought conditions," said Wilson. "Increased soil moisture actually tends to keep daytime air temperatures lower. This June, Ohio is expecting to experience above average temperatures (mostly as it applies to overnight lows). After the rainfall a week ago, the soil moisture levels have now increased across the state. Long range models show Ohio will most likely have average precipitation with no major signal for abundantly wet or dry, with an increase probability of above average precipitation west of Ohio."

Favorable weather during the growing season is important for farmers. "Looking at the next three months, the signals are for slightly above average conditions," said Wilson. "Precipitation is signaled to be greater than average, and we should have slightly warmer than average temperatures as well."

Too much precipitation during fall harvest is often a concern. "There are indications of a La Niña pattern developing later in the fall and winter, described by cooler-than-average sea surface temperatures in the tropical Pacific. Late Fall could see a wetter than average pattern as we move late into the harvest season," said Wilson. "Typically for Ohio, the El Niño or La Niña impact our winter weather patterns more than our summer patterns. El Niño patterns tend to be dryer winters for Ohio, and La Niña patterns tend to be wetter winters."

Hurricanes have also impacted Ohio agriculture in the recent past. Hurricanes can impact the late summer and early fall weather. "This year the United States is predicted to have a very active hurricane season," said Wilson. The prediction is for more hurricanes including the stronger Category 3-5 storms than average."

To read more stories like this one, visit **OhioFieldLeader.com**, an online resource to give you access to the latest soybean checkoff research and water quality information to enhance your operation.

COME CLEAN

STEPS TO MINIMIZE WEED SEEDS AND OTHER FOREIGN MATERIAL





Scout and identify weeds



Use multiple modes of action (MOAs)



Use pre- and post-emergence herbicides



Don't ditch your ditches or field borders



Consider a pre-harvest herbicide or manual weed removal



Clean storage bins, augers, legs, transport vehicles and farm equipment



Precision Ag Reviews Gains Traction Through Online Call for Reviews

Precision Ag Reviews, a program started by the Ohio Soybean Council and soybean checkoff in 2017, is a public site that strives to create a "farmers helping farmers" community by collecting reviews for all brands and models of precision ag technology and equipment.

Precision Ag Reviews has recently gained online traction through a digital campaign seeking reviews on all makes and models of precision equipment and technology, in exchange for a \$10 Amazon gift card. U.S.-based precision farmers were asked to complete a quick five question survey that includes a five-star rating system on cost, ease of use, value, technical support and comments on what they would tell other farmers about the product.

While the promotion was capped at 150 reviews, more than 475 reviews were submitted on 193 different precision products. This brings the total number of reviews on **PrecisionAgReviews.com** to over 3,700.

"Precision Ag Reviews is an essential tool for farmers. The success we've seen with this promotion further explains why unbiased information is so important to growers. We continue seeking reviews and encourage growers to check out the strong, diverse set of reviews we currently have. The goal of this platform is to better the industry," said Barry McGraw, Ohio Soybean Council Director, Production Development & Commercialization.

The Precision Ag Reviews team manually reviewed and verified eligible reviews prior to sharing the Amazon gift card. If there were questions regarding the validity of the review, the Precision Ag Reviews team followed up with the farmer to get additional





information to ensure only quality reviews are added to the site.

All reviews collected are placed online for farmers to access when researching precision ag products. Farmers can see the collective average review, in addition to all individual reviews, to aid in educated decisions on the best equipment for their operation. The website also includes an active weekly blog, with content authored by farmers and independent precision ag experts, a newly launched Precision Points, an ag tech podcast and a sign-up for the monthly newsletter sharing precision ag insights.



"The site is building a reliable source of information about precision technology so farmers can educate themselves without a bias of brand or product," continued McGraw. "Check out the Precision Ag Reviews website, and if you don't see reviews on the product you're looking for, let us know, and we will get it added to the site."

Check out Precision Ag Reviews online at **PrecisionAgReviews.com**, Facebook, Twitter and subscribe to the podcast **Precision Points** wherever you listen to podcasts.



Happy Chickens. Happy Families. Happy Soybean Farmers.

t's no secret that poultry and livestock are soybeans' number one customer and that building demand for meat, in turn, builds demand for soybeans. The Ohio Soybean Council (OSC) and soybean checkoff partnered with two Lee's Famous Recipe Chicken franchises in West Central, Ohio, to gain a direct link to the supply chain and drive the demand for chicken at these store locations and, in turn, increase the demand for soybeans. Lee's shares Ohio soybean and livestock farmers' values of affordable, safe food produced by Ohio farmers. And, while they understand that their customers appreciate locally-produced food and the positive perception that local farmers can bring to their brand, Lee's recognizes that affordability is made possible through the commodity markets, not a direct local supply chain.

"As a checkoff, one of our strategic goals is to build demand for Ohio soybeans," explained Bob Suver, OSC demand committee chair and Clark County soybean farmer. "Working with two local Lee's franchises is just one of the ways we are supporting the animal agriculture industry and therefore building demand for our beans."

The "Happy Chickens. Happy Families." campaign was launched in May 2019 and developed on the premise that 100% people prefer the taste of chicken tenders over soybeans and, vice versa, 100% of chickens prefer the taste of soybeans over chicken tenders — a creative take on the narrative and connection between chickens' consumption of soybean meal and the converted protein punch when humans eat chicken. The campaign

was brought to life through point-of-purchase promotional items and social media advertising on the existing franchise pages, tapping into an already-established marketing platform with loyal followers. Customers were incentivized to buy Lee's with a free meal coupon in exchange for completing a brief customer survey, which also entered them for a chance to win the Ultimate Chicken Connoisseur Sweepstakes — a grand prize worth \$4,000 that included a Big Green Egg meat smoker, Yeti cooler, Lee's Party Pak and other grilling accessories.

When the campaign ended last September, the seven participating Lee's stores had seen a combined 9.45% increase in sales compared to the same timeframe the previous year, translating into a 1.71% increase in pounds of chicken sold, which created demand for an additional 3,238 pounds of soybean meal. Additionally, 107,000+ Facebook users were reached through the online campaign that educated consumers on various aspects of animal agriculture and the connection between the chicken they eat and the crops soybean farmers grow and harvest.

Needless to say, both Ohio Soybean Council and the FRFC Springfield Lee's franchise, owned by Scott and Kim Griffith, were thrilled with the results of the campaign. The demand committee approved a second round of funding for the partnership in December and "The Ultimate ProteinTEAM" campaign kicked off in March, emphasizing the teamwork between Ohio soybean farmers, poultry farmers and consumer-facing food service entities, like Lee's. This time,



the campaign was expanded to another franchise and an additional 14 stores in the Dayton region with a similar premise — free two piece snack coupons and sizable sports-themed giveaways to drive new and returning customer visits.

As the COVID-19 pandemic developed and transpired simultaneously, the campaign was impacted in more ways than one — including the need to restructure the giveaways since most originally included sporting event tickets. Despite the dip in sales and decrease in store traffic during the stay at home order, the campaign is finishing strong as things slowly return to normal in the food service industry and will wrap up in early June. After all, nothing can keep the Ultimate ProteinTEAM out of the game for too long. •



Updated Tri-State Fertilizer Recommendations Complete

By Kayla Weaver

he Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa were originally issued in 1995 and have been helping guide fertilizer decisions for Ohio farmers for the last 25 years. Throughout those years, much has changed in agriculture including advancements in application methods and precision equipment, changes in tillage practices, and new soil testing technology. These changes, along with a call for farmers to be held more accountable with nutrient application and soil erosion in regard to water quality, were the driving forces to pursue an updated document with greater relevance for area farmers.

The project was formally proposed in 2013 and headed up by Steve Culman, associate professor and soil fertility specialist at The Ohio State University with funding coming largely from the Ohio Soybean Council (OSC) and soybean checkoff and Ohio Corn and Wheat among additional funds and resources from USDA, The Ohio State University and Michigan State University.

"We knew when we were coming up on 20 years since the recommendations had been published that it was probably time to update them," said Todd Hesterman, OSC research committee chair and Henry County soybean farmer. "Now that those updates are complete, farmers can make better-informed decisions about the management practices they are using on their farms."

Over the course of five growing seasons, researchers monitored and gathered data from farms in 33 counties across Ohio with some additional information gathered from

sites in Michigan and Indiana, to put together the updated Tri-State Fertilizer Recommendations. Those involved include an extensive list of Ohio State researchers and county extension agents as well as farmers who played a critical role in ensuring the information was representative of typical Ohio farms and a variety of production practices.

"The revision of the Tri-State Recommendations has been a pro-active, industry-initiated project financed largely through checkoff programs. The updated information will support farmer's efforts to be more judicious with their fertilizer practices and apply only what is needed for a healthy crop," said Culman. "Original recommendations came largely from information gathered on research farms. Using a broad network of farmers gives us better information."

Almost all locations were large onfarm strip trials with additional sites on university farms. Farmers were asked to pick a crop, submit nutrient history information, and report production practices such as cover crops used, tillage methods, and details on fertilizer application and sources. Each site was monitored with routine soil samples and testing, leaf tissue testing, grain nutrient concentration at harvest, and yield data.

The Tri-State Recommendations focus on mineral fertilizer sources with critical levels of Nitrogen (N), Phosphorus (P), and Potassium (K) being at the forefront and additional information included on Calcium, Magnesium, Sulfur and Micronutrients.

While the findings of the research did not result in wildly different recommendations, the success of the project is in the relevance it once again has. The recent on-farm trials utilized a variety of practices and application

methods, along with other advancements in agronomy, and have validated critical level recommendations.

Soil testing to monitor critical levels is still recommended every three to four years, but one of the most notable changes is the default soil extractant used to test phosphorous levels changed from the Bray1 to Mehlich-3.

"We made the change to better align with tests from the soil labs. The Mehlich-3 is a more commonly used test that utilizes a single extractant. In recent years, the Mehlich-3 numbers would have to be converted back to Bray P1 so this adjustment will make lab results easier to use" said Culman.

Other changes include updated crop removal rates that detail the amount of the nutrients removed based on each bushel of grain. The study showed that nutrients removed from the soil per bushel of grain have decreased, seen most substantially with Potassium, which will allow producers to save on fertilizer costs.

Calcium, Magnesium and Sulfur as well as other micronutrients were found to be maintaining adequate levels, but cases of Sulfur deficiencies — while still infrequent — are increasing.

Data revealed that soils in the maintenance range for Phosphorus and Potassium generally did not show a yield response to fertilizer and can provide sufficient Phosphorus and Potassium for several growing seasons without added fertilizer.

Nitrogen application rates in corn now have a calculator that factors previous crop grown, price of fertilizer and expected price per bushel to create a range of Nitrogen rates based on profitability of the farm. This shifts the focus for farmers from the highest yield scenario to the most profitable scenario. Recommended Mehlich-3 Soil Test Phosphorus and Potassium Levels (Critical Level – Maintenance Limit) for Field Crops in the Tri-State Region.

Nutrients Removed in Harvested Grain			
Crop	Grain Nutrient Removal Rate		
с.ор .	lbs. P ₂ O ₅ / bushel	lbs. K ₂ O/ bushel	
Corn	0.35	0.20	
Soybean	0.80	1.15	
Wheat	0.50	0.25	

Nutrient removal rates per bushel of
grain have decreased, especially with
potassium. This represents an
opportunity to save on fertilizer costs.
go.osu.edu/grain

Overall, data showed that corn, soybeans, and wheat are yielding more grain while removing less nutrients from the soil than they required just 20 years ago. Knowing this allows farmers to refine their fertilizer plans and make decisions that can help not only their bottom dollar, but also helps them continue to be a part of water quality solutions by applying only what is needed.

"Fertilizer application is one part of the water quality story, but we're giving growers information to help make better decisions. It's a win-win; if a farmer is using less fertilizer, they are saving money and there are potential water quality benefits from that as well," said Culman. "We're taking away uncertainty which allows farmers to manage the risks more conservatively."

The recommendations focus on rate of application and assume typical broadcast application, but in the details, more information can be found that relates to the 4R framework (Right Source, Right Rate, Right Time, Right Place) to help growers further enhance their fertilizer programs.

"As a team, we're very proud of the document. It's a comprehensive guide for farmers and some of the best information we have," said Culman.

	Mehlich-3 Phosphorus	Mehlich-3 Potassium Maintenance Range		
Crop	Maintenance Range	Sandy soils	Loam and clay soils	
		(CEC <5 meq/ 100g)	(CEC >6 meq/ 100g)	
Corn (grain or forage), Soybean	20 – 40 ppm	100 – 130 ppm	120 – 170 ppm	
Wheat, Alfalfa	30 – 50 ppm	100 – 130 ppm	120 – 170 ppm	

Recommended Fertilizer Rate Based on Expected Grain Yields when Soil Test P and K are in the Maintenance Range. Potassium Recommendations differ by State.

		Recommended Fertilizer Rate			
Crop	Yield	IN, MI, OH	IN & OH	MI	
	(bushel/ acre)	lbs. P ₂ O ₅ / acre	lb. K ₂ O/ acre	lb. K₂O/ acre	
Corn	150	55	50	30	
	200	70	60	40	
	250	90	70	50	
	300	105	80	60	
Soybean	30	25	55	35	
	50	40	80	60	
	70	55	100	80	
	90	70	125	105	
Wheat	60	30	35	15	
	90	45	45	25	
	120	60	50	30	
	150	75	60	40	

The updated recommendations are currently being prepared for publication and will be rolled out through Ohio State University Extension in the coming months. Those interested in viewing the recommendations and other agronomic updates can keep an eye on the latest C.O.R.N. newsletter from Ohio State University Extension at: https://agcrops.osu.edu/newsletter/corn-newsletter



COVID-19 Effect on Checkoff-Funded Research

hen The Ohio State University (OSU) started prohibiting face-to-face meetings in March due to concerns surrounding COVID-19, the fate of agricultural research was uncertain. Many research projects, especially those conducted in labs, require close-quarters, in-person collaboration to complete the job. The Ohio Soybean Council (OSC) and soybean checkoff had already committed and allocated funding to support various soybean research going on at the university. OSC received calls from concerned farmers about how soybean research would be affected by the university's new guidelines.

Ultimately, soybean research is still moving ahead. Despite the confusion and uncertainty at the beginning of the coronavirus response from OSU, at the time of publication, the researchers funded by checkoff dollars have largely been able to continue their work as usual.

Laura Lindsey is an associate professor at OSU whose current checkoff-funded research projects include a planting date by seeding rate study. The study is going surprisingly well this year given that it had to be postponed due to 2019's wet weather. "My program is pretty fortunate because we don't rely on much lab work or greenhouse work," Lindsey explained. "Since our program is outdoors, we are able to do most of our research at the normal capacity.

"Even though we're working outside, we're still maintaining distance. Our plots are usually about 10 feet wide so if you're a plot away from each other it's at least six feet."

Anne Dorrance serves as a professor and Associate Dean and Director of OSU's Wooster Campus. Her work focuses on soybean cyst nematodes, phytophthora root rot, frog eye leaf spot and sudden death syndrome, among other yield robbers. Dorrance and her team work to slow and combat fungicide resistance in these diseases, and improve in-field management strategies.

"All of my studies have been planted so we're still able to evaluate management strategies, germplasms and seed treatments in the field. We just need to make sure all our farm staff stay healthy through harvest," Dorrance said. She added that infestations of pigweed. He mentioned that at the time of publication, he and his team are starting to transition back into the greenhouse. Loux said that the work they are planning to do will get done, it will just be a matter of when.

A common thread among all three researchers was the new safety protocols in place to help prevent the spread of COVID-19. Things like having individuals travel in separate cars, wiping down shared materials and six feet of



parts of her research that take place in a lab have not been able to be done, but the work does not stop just because a lab is closed. Dorrance explained that COVID-19 has allowed her and her team to pause and refocus some of their energy on analyzing data, starting work on a book chapter and taking qualifying exams, to name a few tasks.

Professor Mark Loux, who researches weed management, has also felt some minor effects of coronavirus on his work. Loux works with herbicide resistance in pigweed and Palmer amaranth and using drones to scout for late season

COVID-19 has left field research largely unaffected, while some lab work has been put on hold. However, that pause has allowed researchers to catch up on analyzing previously gathered data.

social distance are now a daily part of conducting soybean research. But what better way to measure social distance than with a soybean research plot in between people? •

Interested in learning more about checkoff-funded research at OSU? Visit **ohiofieldleader.com**.



World Shipping Inc. Gives Ohio Farmers a Unique Export Opportunity

n a land-locked region like central Ohio, the logistics for shipping soybeans for export can get complicated. However, one Ohio company is making fast and efficient port access a reality for Ohio soybean farmers through their Columbus intermodal truck to train facility.

Through cutting-edge transloading services, World Shipping Inc. provides Ohio soybean growers convenient access to the Port of Virginia, in Norfolk, Virginia, where export partners can ship their soybeans, soybean meal, or soybean oil anywhere on earth.

On March 2, representatives from Ohio Soybean Council's (OSC) staff and farmer-led board visited World Shipping's Container Transload Facility (CTF) in Columbus to learn more about their unique transloading facility

Bob Suver, OSC demand committee chair and Clark County soybean farmer, visited World Shipping, Inc. in Columbus in March.



and services. The for-contract, third-party facility offers soybean growers and brokers the ability to ship 560,000 pounds of soybean meal per day direct to export.

"The benefit for customers is that we streamline the process," said Jackie Csiszar, director of business development at World Shipping. "Agricultural goods, like soybean meal and oil, can be easily moved between points in the United States and points around the world in one simplified step. The location is especially convenient for

Ohio customers."

The door-to-door transloading service ensures shipments move seamlessly from truck to railcar to Norfolk. With over 7,000 feet of track, CTF can accommodate just about any quantity of

accommodate just about any quantity of railcars for transload, from single cars to unit trains.

"As farmers, we take our beans to the elevator and don't often think about how they move after that," said Bob Suver, OSC demand committee chair and Clark County soybean farmer. "Going on a tour like this makes us as farmer board members better educated about the transportation process and able to make better decisions when it comes to using checkoff dollars to fund transportation-related projects."

Throughout their visit, OSC representatives learned about CTF's quick and efficient transload process. When product first arrives, they are weighed before high-speed transloading equipment unloads each truck in about 15 minutes in a container. CTF's state-of-the-art grain unloaders can move about 110 tons of grain per hour. As one

container is completed, another empty container is positioned for loading and a second full truck is staged for unloading, which reduces dwell time for maximum efficiency.

Once trucks are unloaded, they're measured a second time to verify net product weight. The empty truck then

"The benefit for customers is that we streamline the process"

- Jackie Csiszar

exits, and the full containers proceed to the private on-site CTF International Rail Operation. There, CTF staff load the outbound containers directly to waiting intermodal cars, which allows for maximum cargo weight and eliminates need for drayage or overweight permits. In just 48 hours, product can travel from Columbus to Norfolk. By combining truck and rail transload services with on-site intermodal rail operations, CTF maximizes efficiency for cost-conscious, timely export options.

"Our all-inclusive pricing model puts the shippers' priorities first," explained Csiszar. "We can reduce costs by leveraging our ample supply of on-site empty intermodal containers with our cost-effective transload services and our exclusive on-site rail intermodal operation that virtually eliminates all container drayage cost. This transload service, coupled with competitive rail rates from Columbus to on-dock Norfolk rail operations for export moves and our close partnership with the Port of Virginia, allows us to provide a world-class experience that benefits the customer's bottom line."



Here in Ohio, We Grow Demand.

The Ohio Soybean Council and soybean checkoff conduct research, make strategic business connections and build demand for Ohio soybean farmers. These new opportunities allow researchers to create new soy-based products and create partnerships with companies, like Eleventh Candle Company, to improve and increase the demand for soybeans.

Learn more at SoyOhio.org/HereWeGrow.



