



The —————
Future
————— OF SOY

OHIO SOYBEAN COUNCIL 2021 INVESTOR REPORT







BILL BATESON

CHAIRMAN OF THE BOARD
OHIO SOYBEAN COUNCIL
HANCOCK COUNTY

As an Ohio soybean farmer, you know what it's like to strive for improvement year after year. Whether it's higher yields, reduced environmental impacts, better weed control or greater efficiency, each season brings a new opportunity for greatness. At the Ohio Soybean Council (OSC), we have a similar mindset, strategically investing checkoff dollars each year to drive innovation, expand market opportunities and build understanding for soybean farmers in the Buckeye State.

In 2021, we made great strides. Soybean researchers continued checkoff-funded projects at The Ohio State University to help growers improve their agronomic practices. For example, one project is focused on optimizing soybean seeding rates based on planting dates and another is taking an in-depth look at planting soybeans early into cover crops.

Our one-of-a-kind Airable Research Lab has also continued to grow with new partners helping to fund the lab and a larger team focused full-time on creating soy-based products and formulations to help create additional demand for our soybeans.

Speaking of driving demand, we participated in several important international events this year to build key relationships with soybean buyers across the globe. We also continued partnering with Ohio animal agriculture groups to help increase demand for chicken, turkey, beef, dairy and pork, which are all large consumers of Ohio soybeans.

Our educational efforts, like GrowNextGen, grew in exciting ways this year as well. We got to show thousands of students what planting and harvest are like through virtual field trips and trained Ohio teachers on biotechnology so they can incorporate lessons into their classrooms.

While it's great to look back and be proud of all we've accomplished in the past year, we never stop looking forward. In partnership with four other state soybean checkoffs, we initiated the Future State of Soy, a robust research project to help us keep a strong pulse on what's next for the soybean industry in coming decades. We look forward to the insights this project will provide so we can continue to create opportunities for Ohio soybean farmers.

The programs and initiatives made possible by your checkoff investment keep Ohio soybean farmers at the forefront of today's competitive ag landscape. Thank you for your support of OSC and the soybean checkoff. The future is bright for Ohio's soybean industry.

Sincerely,

Bill Bateson



YEAR ENDED SEPTEMBER 30, 2021

ASSESSMENT RECEIPTS FROM FIRST PURCHASERS

\$17,668,715

LESS

ASSESSMENT RECEIPTS REMITTED TO THE
UNITED SOYBEAN BOARD

\$7,819,982

ASSESSMENT RECEIPTS REMITTED TO
OTHER STATES

\$1,771,556

NET ASSESSMENT RECEIPTS

\$8,077,177

INVESTMENT INCOME

\$15,258

GRANTS

\$84,115

TOTAL ADDITIONS TO FUND BALANCE

\$8,211,297

ADMINISTRATIVE DISBURSEMENTS

\$425,381

TOTAL DEDUCTIONS FROM FUND BALANCE

\$5,239,893

NET INCREASE IN CASH INVESTMENTS

\$2,971,404

BEGINNING CASH INVESTMENTS

\$4,898,365

ENDING CASH INVESTMENTS

\$7,869,769

TOTAL PROGRAM DISBURSEMENTS **\$4,814,512**

DEMAND \$1,526,324

RESEARCH \$1,539,825

COMMUNICATION/EDUCATION \$1,748,363

Where Your Checkoff Dollars Went

While you focus on the day-to-day of your operation, your checkoff investment works behind the scenes to create opportunities for the soybeans in your fields. Throughout the year, OSC and the soybean checkoff persistently seek new and innovative ways to increase profitability for Ohio soybean farmers like you.

DRIVING INNOVATION

The innovative work of OSC helps position the Ohio soybean industry as a cutting-edge leader, giving a unique advantage to Ohio soybean farmers through leading agronomic research, technological advancements and the development of new soybean products.

EXPANDING MARKETS

Whether building relationships with international buyers or increasing domestic awareness of high-value Ohio soybeans, OSC advocates for your crop across the globe. These market expansion efforts provide more opportunities for you to sell your soybeans and grow your business.

BUILDING UNDERSTANDING

OSC plays a major role in building consumer understanding of modern agriculture through education. It's also committed to providing direct value to farmers through effective communication of checkoff programs, opportunities, research findings, industry updates and more.



PLANT RESEARCH

Soybean researchers at OSU are conducting checkoff-funded research to address Ohio farmers' greatest challenges and identify opportunities for enhanced production.

The agronomic optimum seeding rate increases when soybeans are planted late.

OPTIMIZING SOYBEAN SEEDING RATE BY PLANTING DATE

Fabiano Colet, Dr. Alex Lindsey, Dr. David Barker, Dr. Laura Lindsey

Planting date and seeding rate are two of the most critical management decisions farmers make. The objective of this study was to identify the agronomic optimum soybean seeding rate for four planting date time frames.

RESULTS

The two-year study found that the agronomic optimum seeding rate increases when soybeans are planted late in the season. While seeding rate should be increased as the planting is delayed, seed costs need to be taken into consideration. It can also be helpful to use different cultivars with different maturation groups to mitigate losses caused by dry weather events.

When planting early, a living cover crop increased stand count significantly.

EARLY PLANTING OF SOYBEANS IN A RYE COVER CROP SYSTEM

Seth Kannberg, Dr. Laura Lindsey, Dr. Alex Lindsey, Dr. Mark Sulc

While extensive research has been conducted around cover crops and planting dates, little research has connected the two factors. This study was designed to identify yield impacts when growing soybeans within a rye cover crop system for three different planting dates: ultra-early (April 1-April 15), early (April 16-April 30) and normal (May 1-May 15).

RESULTS

When planting early, a living cover crop increased stand count significantly. When planting late, foregoing a cover crop resulted in a significantly superior stand count.

FIRST ANNUAL SOYBEAN RESEARCH FORUM AND THINK TANK

The inaugural event was held in Indianapolis in late August. It brought over 100 soybean farmers, staff, university researchers and company and agency representatives together to discuss current work and future opportunities for prioritized and collaborative research that will accelerate the positive short- and long-term profits, productivity and sustainability of U.S. soybean farmers, especially in the areas of production, sustainable and regenerative ag, and new uses and markets.

OHIO AGRICULTURE CONSERVATION INITIATIVE (OACI)

In 2021, for the first time ever in Ohio, the OACI assessment program implemented a statistically valid survey of conservation practices on farm fields in a key watershed, the Lower Maumee River. The first survey established a baseline, then OACI will periodically survey again over time to gauge progress. Practices accounted for in the assessment include soil test frequency and intensity, nutrient placement practices, application rates for phosphorus and nitrogen, tillage practices and cover crops.

MANAGING SOYBEAN INSECT PESTS

Dr. Kelley Tilmon

Entomologist Dr. Kelley Tilmon is leading a four-part project addressing key insect issues for Ohio soybean farmers and developing resources to help them manage pest pressure in their fields.

OBJECTIVE 1: SOYBEAN GALL MIDGE TRAINING

Soybean gall midge is a new invasive pest in the western Corn Belt that spreads each year. Training is being developed to help Ohio farmers prepare for the pest's arrival in Ohio with tools for early identification. These trainings will provide information on damage symptoms and pest identification tools, including 3D models that show what gall midge larvae look like inside of a soybean stem.

OBJECTIVE 2: STINK BUG SCOUTING TOOLS

Traditional scouting for stink bugs in soybeans using a sweep net is time consuming and inefficient. Current research is adapting pheromone-baited sticky cards, a technology used to track stink bugs in orchards, as a scouting tool in soybeans.

OBJECTIVE 3: PROTECTING APHID-RESISTANT SOYBEANS

New molecular markers for aphid biotypes that are harmful to aphid-resistant soybean varieties are being evaluated. This will help the industry monitor and identify such biotypes to maintain the success of aphid-resistant soybeans.

OBJECTIVE 4: STINK BUGS OF OHIO FIELD GUIDE, SECOND EDITION

A second edition of the popular Stink Bugs of Ohio Field Guide has been created, featuring relevant updates and new images.

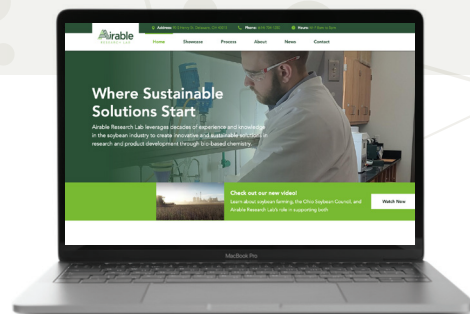
Driving Innovation

PRODUCT RESEARCH

With a soy-specific research lab and a roster of successful proprietary products, OSC is an industry leader in soy-based product development. Identifying new uses for soybeans provides innovative solutions for various consumers and industries, while increasing profitability for Ohio soybean farmers.

AIRABLE RESEARCH LAB

The cutting-edge, Ohio-based research lab focused on developing new uses for soybeans is now its own nonprofit corporation with a board of four Ohio farmers and three industry executives. The lab also has three new partners, the Iowa, Illinois and Michigan Soybean Associations, as well as eight full-time engineers and chemists. Having this soy-focused, checkoff-funded lab allows the team to conduct four times the amount of research compared to outsourcing it. AirableResearchLab.com





SOY IONIC LIQUID

Ionic liquids are used in a variety of industries for a range of applications, including separations, lubricants, electrolytes and solvents. However, many commercially available products contain hazardous and toxic components and have poor biodegradability. This soy-based formulation maintains good performance while addressing environmental concerns.



SOY POLYOL

This biodegradable, soy-based polyol can be used in the production of polyesters and polyurethanes for packaging materials, window sealants, belts, wheels, bedding, furniture cushioning and more.



LEATHER CONDITIONER

Conditioners are important for maintaining leather goods. This eco-friendly treatment made with soybean oil can extend the life of leather products by softening the materials to prevent cracking, reduce moisture loss that leads to drying, smooth out small scratches, clean and protect the surface, and revitalize the leather's luster.

Expanding Markets

INTERNATIONAL MARKETING

Despite international travel still being limited in 2021, OSC found innovative ways to connect with international buyers and continue promoting the quality soybeans produced by Ohio farmers.

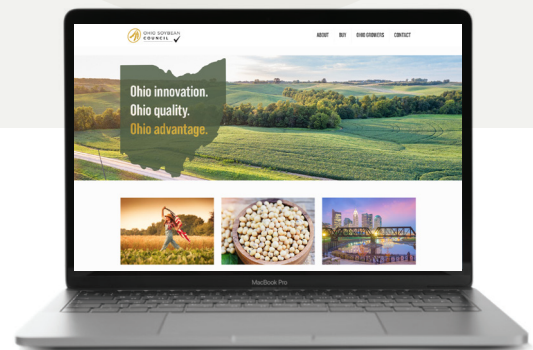
USSEC AND OSC VIRTUAL TRADE TEAMS MEETING

A total of 75 soybean buyers from Romania, Bulgaria, Greece, Croatia, Albania and Turkey tuned into this virtual meeting to learn about the latest developments in Ohio and U.S. soy from Ohio soybean farmer Bill Bayliss, Mac Marshall of the United Soybean Board and Neil Donovan of Bunge USA.

GLOBAL TRADE EXCHANGE

In August 2021, 700 international buyers convened at this hybrid meeting that took place both virtually and in person in St. Louis, Missouri. It provided an opportunity for the soy value chain to come together, including soybean farmers, international buyers and all the businesses and organizations involved in making quality soy products. OSC board member Bob Sverer spoke on a panel during the opening session to share about this year's soybean crop.

700 INTERNATIONAL BUYERS
CONVENED BOTH VIRTUALLY
AND IN PERSON IN
ST. LOUIS, MO



OHIO SOY ADVANTAGE

OSC launched a new website to connect buyers and sellers of Ohio soybean oil, soybean meal and food-grade soybeans. The site highlights Ohio farmers, provides current data for Ohio markets, offers regular updates on growing and harvest seasons, and gives contact information for Ohio soybean exporters.

OhioSoyAdvantage.com

SOUTHEAST ASIA SOY EXCELLENCE AND PROTEIN SUMMIT

OSC participated in this event with a virtual booth, which brought together hundreds of attendees to discuss the growth and innovation of the soy food and beverage markets in Asia.



Expanding Markets

ANIMAL AGRICULTURE

Soybeans are an integral part of the animal agriculture industry so when animal agriculture succeeds, soybean farmers succeed. OSC collaborated with the Ohio Pork Council, Ohio Poultry Association, Ohio Cattlemen's Association, American Dairy Association Midwest and the Ohio Livestock Coalition to help increase demand for Ohio's chicken, turkey, eggs, beef, dairy and pork.

TRANSPORTATION

OSC, the Soy Transportation Coalition and Hancock County, Ohio, partnered on a pilot project in which RePlay, a soy-based asphalt sealant produced by BioSpan Technologies, was applied on a rural county road. The penetration of salt, water and other materials into a paved road, particularly in areas with a freeze-thaw cycle, can result in significant damage and diminished longevity. The application of an asphalt sealant like RePlay can provide a barrier to such penetration and significantly increase the useful life of the road or bridge.

A close-up photograph of a white chicken with a red comb and wattle, eating from a red plastic bowl. The chicken is the central focus, with its head and neck in the foreground. The background is blurred, showing other chickens and a red metal structure, likely part of a farm or processing facility.

**WHEN ANIMAL
AGRICULTURE SUCCEEDS,
SOYBEAN FARMERS
SUCCEED.**

BIODIESEL

The National Biodiesel Board, in partnership with Trinity Consultants, recently launched a new landmark study sharing the mounting evidence of biodiesel's positive impact on human health. This research shows that switching to 100% biodiesel in the home heating oil and transportation sectors could:

- **PREVENT 340 PREMATURE DEATHS ANNUALLY.**
- **RESULT IN 46,000 FEWER SICK DAYS.**
- **REDUCE CANCER RISK BY 45% AND CAUSE 203,000 FEWER OR LESSENERD ASTHMA ATTACKS IF HEAVY-DUTY TRUCKS USED B100.**
- **REDUCE CANCER RISK BY 86% AND CAUSE 17,000 FEWER LUNG PROBLEMS IF BIOHEAT® FUEL MADE FROM 100% BIODIESEL WAS USED INSTEAD OF PETROLEUM HEATING OIL.**



Building Understanding

EDUCATION

Educating the next generation about the importance of agriculture and generating interest in the field is crucial for the future of the industry. OSC engages Ohio students and teachers through several key programs each year to help grow understanding throughout the state.

GROWNEXTGEN

GrowNextGen is recognized as the premier education platform connecting agriculture to science in Ohio and around the country. Since its creation in 2013, GrowNextGen has provided classroom resources for teachers and students, workshops for teachers, instructional and informational videos, career information and more.

AG BIOTECH GRADUATE ACADEMY

The Ag Biotech Academy is a two-day workshop designed to help high school teachers understand the benefits of biotechnology in agriculture. Thanks to a partnership with Corteva Agriscience, OSC and the OSC Foundation, these academies have trained more than 250 teachers, including 40 this year, and contributed over \$100,000 in classroom supplies to Ohio schools. Driven by the success and popularity of these workshops, the Ag Biotech Graduate Academy was launched this year to provide an additional level of training for teachers. In its inaugural year, the graduate academy trained 18 teachers.

GENE EDITING WORKSHOP

This workshop was hosted at The Ohio State University Wooster campus in partnership with the Center for Food Integrity and trained college students on how to effectively educate consumers about gene editing.

VIRTUAL FIELD TRIPS

For the fourth year, OSC hosted virtual field trips to help Ohio students experience local soybean farms and gain a deeper understanding of modern agriculture. Compared to last year, 14,000 more students were reached through the program this year with a total number registered of 25,280, which is more than all three of the previous years combined. Topics included:

- Two virtual planting field trips.
- Two virtual harvest field trips.
- One live virtual tour of Winans Candies, featuring Amy Snyder, who shared soy's role in chocolate production with classrooms.

CHICKQUEST AND CHICKENOLOGY

The elementary school teacher workshop, ChickQuest, has been attended by over 1,500 teachers since its inception. Growing in popularity each year, the workshops trained 97 teachers across Ohio this year. In 2021, OSC also welcomed two new partners, Cleveland Public Schools and The Works, a science center out of Newark, Ohio.

While ChickQuest is geared toward elementary classrooms, OSC launched a new program this year called Chickenology designed for middle and high school curriculums. This program, jointly funded by OSC and the Ohio Poultry Association, is much more advanced and science-oriented.



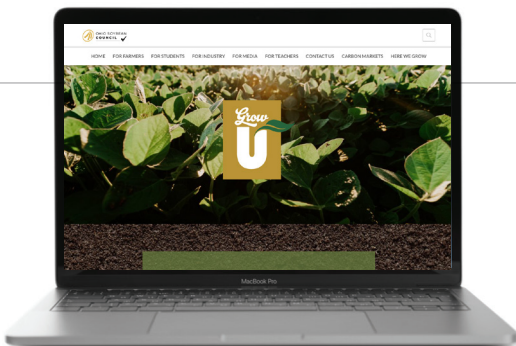
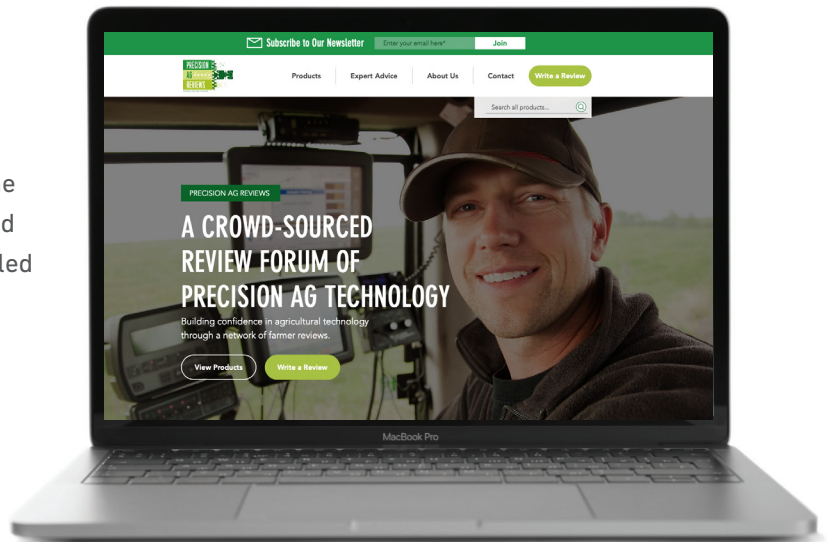
Building Understanding

COMMUNICATION

Helping farmers grow their operations and maintain a competitive edge is a key function of the soybean checkoff. These OSC programs and platforms are designed to help farmers stay on top of the latest research, innovations and industry so they can make the best decisions for their farms.

PRECISION AG REVIEWS

This non-biased, independent platform designed to help farmers make purchasing decisions about precision ag equipment and technology grew in several ways this year. The website now has over 4,000 grower-submitted reviews and a new podcast was launched called Precision Points, which has reached almost 6,000 downloads with 39 episodes. This was also the first year Precision Ag Reviews has received sponsorships to provide additional funding, including a sponsorship from AgLeader. [PrecisionAgReviews.com](https://www.precisionagreviews.com)



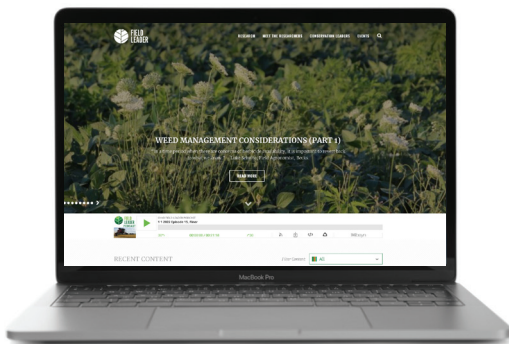
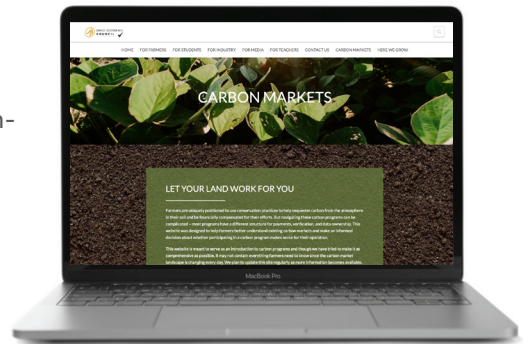
GROW U PROGRAM

This new program features informational videos about farm profitability, grain marketing and taxes to help young and beginning farmers establish a strong start. [SoyOhio.org/GrowU](https://www.soyohio.org/GrowU)

CARBON MARKETS RESOURCES WEBSITE

OSC launched a new website to help farmers answer common carbon-related questions, compare carbon programs available in Ohio and compile the questions they need to consider before enrolling in a program. A bi-weekly newsletter was also initiated to keep farmers updated on the latest news affecting carbon markets.

SoyOhio.org/CarbonMarkets



FIELD LEADER

This website and newsletter bring the latest updates on agronomic, conservation and plant research from universities to help farmers stay ahead of the game when growing their crops. This year, 169 articles were published with leading agronomic information, a monthly Field Leader podcast was launched and the program sponsored the 2021 Ohio Crop Tour with Ohio Ag Net. **OhioFieldLeader.com**

OFBF MEMBER MEETINGS. OSC attended 28 Farm Bureau county annual meetings to share the checkoff's efforts and impact. OSC also presented to the Young Ag Professionals committee.

OHIO SOY TOMORROW

OSC hosted the 2021 Ohio Soy Tomorrow meeting with representatives from across the agricultural value chain. Attendees discussed traceability and the related challenges and opportunities for soybean farmers. The meeting was attended by farmers, cooperatives, processors, technology companies and others.

CHECKOFF CHECK-IN

This new webinar series features OSC partners and board members as they discuss checkoff projects. Topics included the soybean checkoff's 30th anniversary, Airable Research Lab, carbon markets and drone technology.

VOICE OF SOY RADIO SHOW

OSC launched the Voice of Soy radio show, which airs weekly on 27 Brownfield Ag News stations in Ohio. The show features interviews with soybean researchers, OSC staff and farmer board members to talk about the various projects and investment areas of the soybean checkoff.

MEDIA TOUR

In 2021, OSC hosted its first-ever media tour. Reporters and representatives from the Ohio Department of Agriculture and Farm and Dairy were taken to two Ohio farms and Airable Research Lab to learn more about soybean farming and soy product research.



OHIO SOYBEAN
ASSOCIATION

OHIO SOYBEAN ASSOCIATION

As a grassroots organization, the Ohio Soybean Association (OSA) works to provide leadership for Ohio's soybean farmers by promoting policies and legislation that ensure a growing and profitable industry.

SUPPLY CHAIN EFFORTS

OSA worked with Ohio members of Congress to address the shortage of fertilizers because of the disruptions in the supply chain.

H2OHIO PROGRAM

OSA advocated for expanding the H2Ohio program and its continued funding in the state's biennial budget.

CAPITAL GAINS TAX POLICY

In partnership with the American Soybean Association, Ohio was the leading state to advocate in opposition to capital gains tax policy that would eliminate or scale back stepped-up basis.

OHIO AGRICULTURE CONSERVATION INITIATIVE (OACI)

Kirk Merritt, OSC and OSA executive director, testified before the Ohio House Agriculture and Conservation Committee this year about OACI. Several representatives from various organizations that make up the OACI committee shared details of the initiative's individual aspects, explained specific research being conducted and shared on-farm examples.

LAST YEAR,
CORPORATE
PARTNERSHIPS
INCREASED BY

13%

CURRENT MEMBERSHIP COUNT IS ABOUT
1,500 AND CONTINUING
TO GROW.



BEGINNING FARMERS BILL

OSA testified on several legislative items throughout the year, and one priority bill is House Bill 95, which would allow income tax credits for beginning farmers who participate in a financial management program and for businesses that sell or rent agricultural land, livestock, facilities, or equipment to beginning farmers. OSA Board Member 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.”



Ohio Soybean Council
Foundation



OHIO SOYBEAN COUNCIL FOUNDATION

The OSC Foundation was established in 2007 to extend the soybean checkoff's impact through special initiatives and programs that advance the application of science and technology to agriculture today and tomorrow.

SCHOLARSHIPS

In its 14th year, the OSCF Scholarship Program awarded eight \$3,000 and one \$5,000 undergraduate scholarships, as well as four graduate scholarships, two for \$2,500 and two for \$5,000. Since 2008, the program has awarded over \$400,000 in scholarship funds to students studying agriculture or a related field at Ohio colleges or universities.

SINCE 2008, OSCF HAS AWARDED OVER

\$400,000

IN SCHOLARSHIP FUNDS TO STUDENTS.

SCIENCE FAIRS

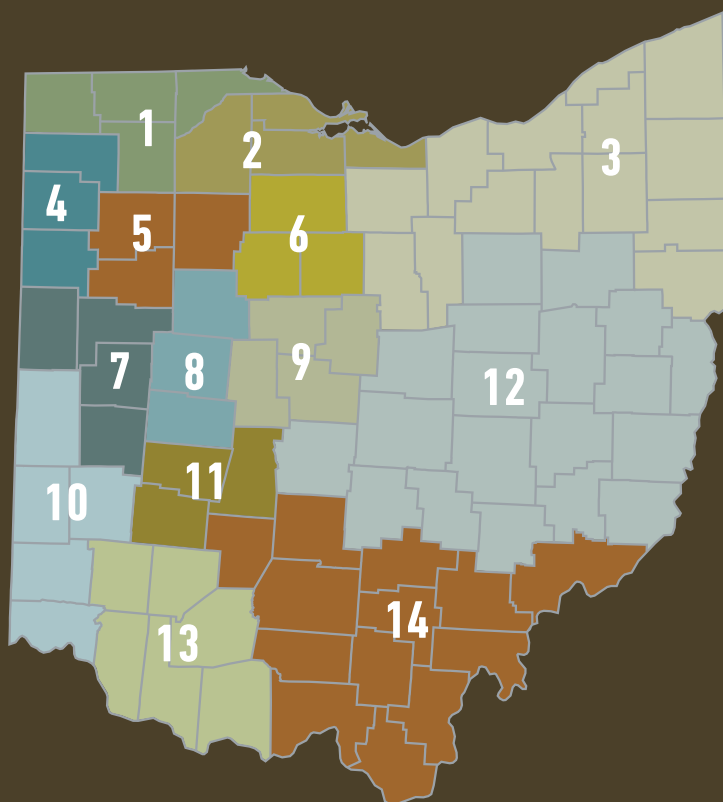
The foundation supported district and state science fair competitions throughout Ohio for the 14th year.

**MORE THAN \$5,000 WAS
AWARDED TO 38 OHIO
STUDENTS FOR THEIR
PROJECTS RELATED TO THE
SOYBEAN INDUSTRY.**

AG BIOTECH ACADEMY

OSCF is a key funding partner of these valuable workshops that bring biotechnology lessons to Ohio classrooms through in-depth teacher trainings.





To learn more about the Ohio Soybean Council and how your soybean checkoff works for you, visit SoyOhio.org.

OHIO SOYBEAN COUNCIL

918 PROPRIETORS ROAD, SUITE A
WORTHINGTON, OH 43085

888-SOY-OHIO

PHONE: 614-476-3100

SOYOHIO.ORG

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Soy Transportation Coalition (STC)
Representative
United Soybean Board
(USB) Director

The Ohio Soybean Council (OSC) was founded in 1991 to manage the Soybean Promotion and Research Program, more commonly known as the soybean checkoff. OSC is governed by a volunteer farmer board, which directs the investments of the checkoff. The program's primary goal is to improve soybean profitability by targeting research and development, education and promotion projects.