



# CHECKPOINT<sup>2019</sup> NT

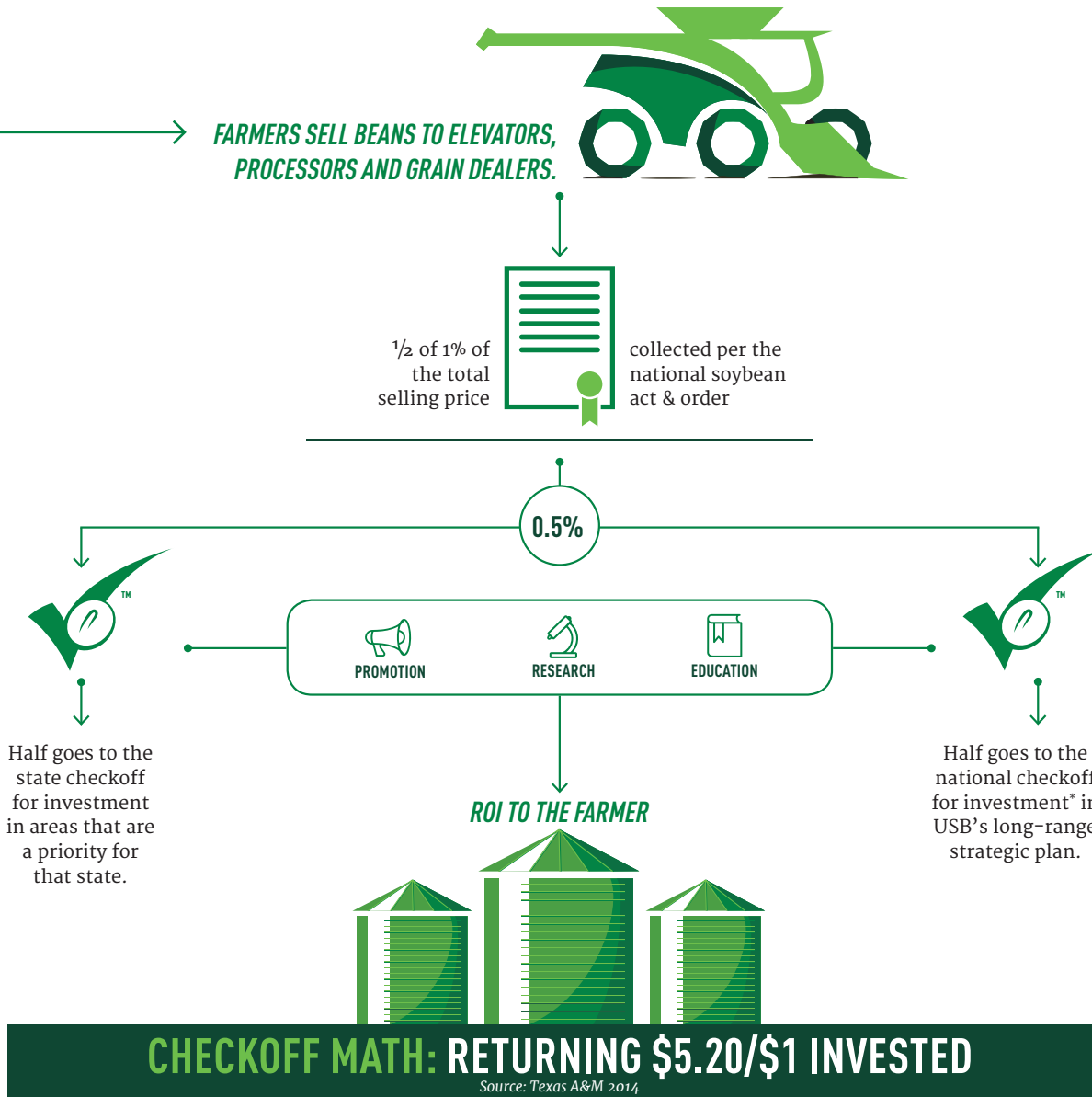
PENNSYLVANIA SOYBEAN BOARD FISCAL YEAR **2019 ANNUAL REPORT**

# Here's How the Soy Checkoff Works

The national soy checkoff was created as part of the 1990 Farm Bill. The Act & Order that created the soy checkoff requires that all soybean farmers pay into the soy checkoff at the first point of purchase. These funds are then used for promotion, research and education at both the state and national level.



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



# WHAT IS THE PENNSYLVANIA SOYBEAN BOARD?

The Pennsylvania Soybean Board (PSB) consists of a farmer-driven board responsible for managing Pennsylvania's share of funds received from the national soy checkoff program. The Board's mission is to invest soybean checkoff resources to advance soybeans in the Commonwealth, enhance sustainability, and provide opportunities for Pennsylvania soybean growers. This annual report outlines the projects and initiatives funded by the checkoff in Pennsylvania in Fiscal Year 2019.

The nine Pennsylvania soybean farmer-directors who make up the Board are responsible for the collection and administration of the soybean checkoff program within the State. The authority given to PSB under the Federal

Act and Order are specific to soybean education, promotion, communication and research. Two members of the PSB also represent Pennsylvania growers on the United Soybean Board.

The PSB is committed to leadership that reflects a diversity of perspectives. That diversity is aimed at reflecting size of operation, experience of members, methods of production and distribution,

ethnicity and gender, marketing strategies, and other factors that will bring different perspectives and ideas to the table.

Individuals who are interested in being considered to serve on the Board are asked to contact Jennifer Reed-Harry, Executive Director, at (717) 651-5922 or via email at [jrharry@pasoybean.org](mailto:jrharry@pasoybean.org). To be eligible to serve, nominees must grow soybeans in Pennsylvania and participate in the checkoff.

**Pennsylvania harvested  
28.4 million bushels  
of soybeans valued at  
\$235 million in 2018.**

**Oct. 1, 2018 -Sept. 30, 2019**

## Pennsylvania Soybean Board Officers

John Harrell\*, Lebanon, PA  
*Chairman*

Emily Landis,  
Pennsylvania Furnace, PA  
*Vice Chairman*

Steve Hykes, Greencastle, PA  
*Secretary/Treasurer*

## BOARD MEMBERS

Brian Kreider, Lebanon, PA  
Andy Fabin\*, Indiana, PA  
Michael Gerhart, Ephrata, PA  
Dustin Kieffer, Rebuck, PA  
Justin Knoebel, Elysburg, PA  
Rick Telesz, Volant, PA

Ex-Officio Member  
Dr. Paul Esker, Penn State Plant Pathologist

## EXECUTIVE DIRECTOR

Jennifer Reed-Harry  
[jrharry@pasoybean.org](mailto:jrharry@pasoybean.org)  
(717) 651-5922



*\* Also serves on United Soybean Board*

## PENNSYLVANIA SOYBEAN BOARD ANNUAL FINANCIAL REPORT

Fiscal Year 10.1.18 to 9.30.19

### CASH ASSETS:

Operating Funds	\$787,246
Emergency Preparedness Fund	\$500,000
Dissolution Fund	\$321,811
Equipment, net	\$416
Less: Liabilities	\$(104)
Net Assets at 9.30.19	\$1,609,369

### REVENUE:

Assessment Income	\$1,152,660
Less: Assessments Paid to USB & QSSB's	\$(624,756)
Other Revenue	\$32,702

### PROGRAM EXPENSES:

Communications	\$(74,095)
Promotion & Education	\$(125,879)
Research	\$(396,277)
Administration/Audits/ Compliance/Insurance/Other	\$(131,868)
Increase (Decrease) in Net Assets	\$(167,513)

# CHECKOFF FUNDED

Research projects designed to provide reliable crop production data to soybean growers and to support Pennsylvania's animal agriculture industry were awarded checkoff grants totaling more than \$500,000 by the Pennsylvania Soybean Board. Research projects focused on crop management practices as well as research benefiting animal agriculture, the largest domestic user of soymeal and the largest sector of Pennsylvania's agricultural industry.



# CROP PRODUCTION

# RESEARCH



## PENNSYLVANIA ON-FARM NETWORK

- Penn State

The Penn State Research Experiment Farms and Pennsylvania growers participating in the On-Farm Network tested a variety of products and management practices.

New projects addressed questions on how to deal with compaction, especially after record rainfall, with a focus on no-till environment.

Another new research trial focused on good inoculation practices based on observations made from successful practices in Brazil.

Growers in 27 counties participated in the research.

The project is open to all soybean producers in Pennsylvania. Growers interested in participating in future trials are encouraged to contact their local Extension Educator for more information.

## SENTINEL PLOT PROGRAM

- Penn State

The sentinel plot program, run in collaboration with Penn State Extension, provided soybean growers with statewide assessment of insects and diseases active in soybean fields. Soybean fields in 23 counties throughout the state were scouted weekly for insect pest and disease population. Reports of the scouting results were reported weekly via Penn State Extension-based outlets.

Summaries of the research results will be available after **April 15, 2020** at [www.pasoybean.org](http://www.pasoybean.org) under the Research tab.

## SOYBEAN VARIETY TRIALS

- Penn State

Soybean early and late-maturity variety trials were conducted at three locations in Pennsylvania. More than 100 commercial varieties and experimental cultivars were evaluated.



## USING PRECISION AG DATA TO REFINE SOIL FERTILITY MANAGEMENT

- Penn State

The project allowed growers and agronomists to synthesize information contained in multiple datasets to identify differences in soil fertility levels across a field. By identifying zones within a field that have low fertility levels, producers can vary the rate of nutrients to achieve higher yields with a more economical use of fertilizer.

# CHECKOFF FUNDED RESEARCH



## BEST MANAGEMENT GUIDELINES FOR WHITE MOLD

- Penn State

The persistent annual risk of white mold requires development of a proactive approach to understanding the importance of different risk factors, as well as farm-level economics to incorporate new changes on the farm. Research investigated best management practices for the control of white mold.

Summaries of the research results will be available after **April 15, 2020** at [www.pasoybean.org](http://www.pasoybean.org) under the Research tab.



## THRIPS ATTRACTION TO VOLATILES OF VIRULIFEROUS SOYBEANS

- Penn State

Soybean vein necrosis (SVN), a viral disease, causes development of shriveled, deformed seeds with reduced germination percentage and decrease in oil percentage, seed weight, protein content and fiber content. This project investigated thrips/soybean plant interactions to determine if volatile compounds emitted by diseased plants are more attractive than those emitted by healthy plants. Information may allow the development of thrips attractants that can be used in traps.

## DEVELOPING PROACTIVE HERBICIDE-WEED MANAGEMENT FOR NO-TILL SOYBEANS

- Penn State

Herbicide-resistant weeds, including Palmer amaranth, waterhemp and horseweed, remain a primary pest management challenge for no-till crop producers in Pennsylvania. This project focused on management of Roundup-resistant weeds and opportunities to reduce input costs associated with weed control programs in no-till soybean.



# ANIMAL AGRICULTURE

## **IMPACT OF SOYBEAN INCLUSION ON LATE GESTATION SOW & LITTER PERFORMANCE**

*- Penn State*

Least cost diet formulations have become a normal method of primary diet formulation in the swine industry. Many producers have elected to move forward with changes to ingredients without supportive research in all stages of production. This research investigated the effect of variable soybean inclusion rates, as compared to standard synthetic amino acids, for protein balance fed during late gestation on sow and litter performance at farrowing.

## **IMPACT OF SOYBEAN PARTICLE SIZE ON POULTRY PERFORMANCE AND DIGESTIBILITY**

*- Penn State*

The poultry industry consumes more soybean meal than any other animal ag sector in Pennsylvania. Optimizing soybean particle size (PS) maximizes nutrient utilization and bird performance, but also minimizes soybean processing energy expenditures for PS and prevents bridging and flowability issues with the meal and final feed.

The study measured the impact of soybean PS on pullet chick growth in a mash-type diet, on nutrient digestibility, on broiler performance, and if pelleting the diet masks the effects of particle size.

## **INCIDENCE OF INFLUENZA D VIRUSES IN PA. CATTLE**

*- Penn State*

Bovine respiratory disease (BRD) is the number one disease of dairy and beef cattle. Growing evidence shows that newly discovered influenza D viruses (INDs) are major players in BRD. The project aimed to isolate and characterize IDV to evaluate the prevalence and genetic diversity of these viruses to reduce losses to the cattle industry.

## **ABILITY OF ROASTED HIGH OLEIC SOYBEANS TO INCREASE MILK FAT YIELD**

*- Penn State*

The research evaluated whether feeding high oleic soybeans at increasing rates will increase milk fat. The objective was to demonstrate that fat intake is limiting milk fat yield in high-producing dairy cows, and high oleic soybeans are a safe and inexpensive source of dietary fat.

# CHECKOFF FUNDED AGRICULTURAL EDUCATION



## **SOYBEAN GROWER EDUCATION**

*- Penn State*

Soybean production workshops and field days are educational opportunities that teach soybean producers new integrated pest and cultural management practices covering the entire growing season.

Support for the workshops and field days, which are held at various locations throughout the Commonwealth, is provided in part by the Pennsylvania Soybean Board through the soybean checkoff.

Each workshop and field day features Penn State researchers, experienced soybean growers and county Extension personnel presenting information covering all aspects of soybean production from planting to harvest.

Topics include information on optimizing variety selection and planting rates, fertility management, weed, insect and disease management, results of On-Farm Network research and harvest and storage considerations.

## **FFA CAREER DEVELOPMENT EVENT**

*- Pa. FFA Foundation*

The Pennsylvania Soybean Board helps develop tomorrow's leaders in agriculture through support of the Pa. FFA Foundation. The checkoff sponsored the Agronomy Career Development Event at the Pa. State FFA Convention to stimulate students' interest in the crop production industry. The first-place team competed at the National FFA Convention in Indianapolis, Indiana.

## **MOBILE AG LAB**

*- Friends of Agriculture*

The Mobile Agriculture Education Science Lab program brings agriculture education directly to schools across Pennsylvania. The program provides a fully equipped classroom on wheels where students in grades K-8 complete hands-on science experiments related to agriculture. Lessons directly related to soybeans are included in the curriculum.



On behalf of the Pa. FFA Foundation, the Pa. FFA state president thanked John Harrell, PSB chair, for the support of Pennsylvania soybean growers.



# PA SOYBEAN YIELD CONTEST

The annual Pennsylvania Soybean Yield Contest is so much more than just friendly competition between growers. Yield contest participants are some of the top producers in the state. The contest is designed to gather and share data from these growers on the agronomic and management skills that produce outstanding soybean yields.

For the contest, the state is divided into five regions (see map) based on agronomic zones. Awards are presented to regional winners as well as an over-all state champion. To be eligible for the yield contest, participants must use non-irrigated soybeans, but are not restricted as to variety, fertilization, spacing or other cultural practices.

In addition to bragging rights, the state champion receives a trip for two to the Commodity Classic, the country's premier educational and trade show for cash crop growers. The top yield winner in each region also receives a trip to the Commodity Classic.

While yields are always important, many processors and

buyers are starting to look at the overall quality of the soybeans. The grower with the highest oil/protein in each region is recognized with a plaque. The contest awards plaques to the grower with the highest irrigated bean yield in the state and for the 90 Bushel Club. Special recognition is also made for irrigated bean yield.

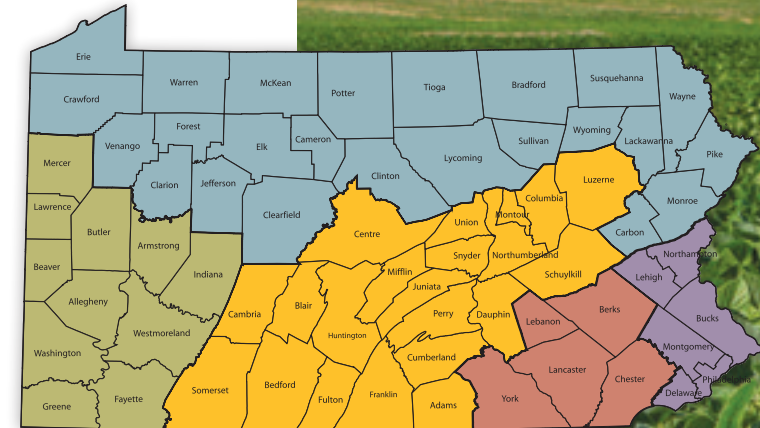
For complete contest rules and information on the Pennsylvania Soybean Yield Contest, see [www.pasoybean.org](http://www.pasoybean.org).



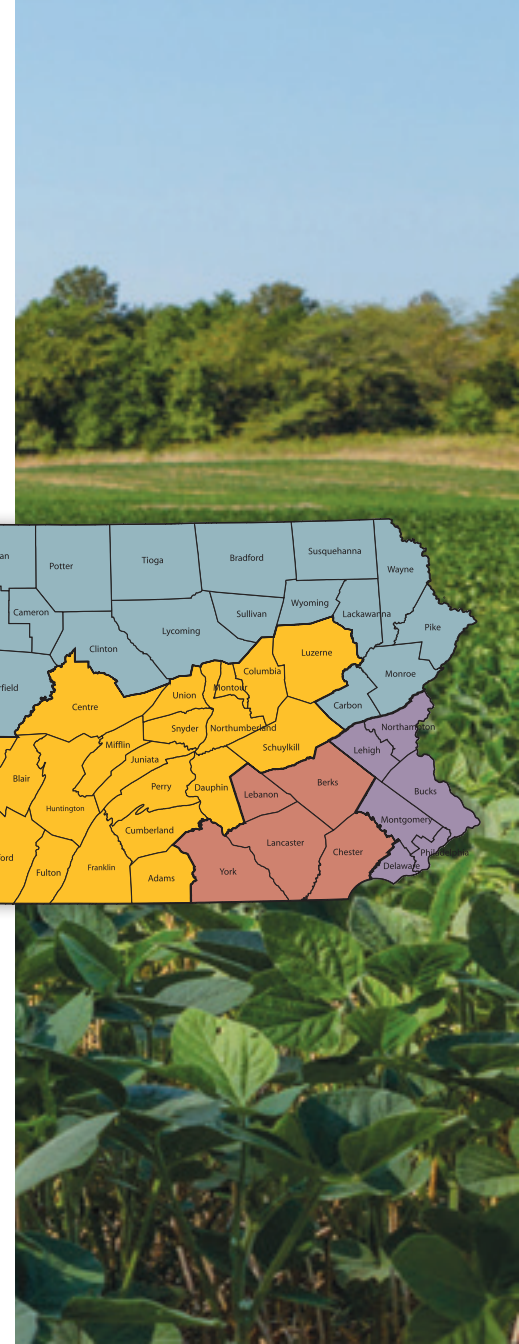
Winners of the 2018 Pa. Soybean Yield Contest attended the 2019 Commodity Classic. Left to right Regional winners Thomas Hoovler, Leslie Bowman and Tim Stewart and state-wide winner Jim Hershey.

## 2019 CONTEST WINNERS

The state and regional winners of the 2019 Yield Contest will be announced in January. A summary of the crop production practices from the 2019 contest entrants will be available from Extension Educators and online at [www.pasoybean.org](http://www.pasoybean.org).



- Northern Region
- West Region
- Central Region
- South Central Region
- Southeastern Region



# TECH TOOLSHED TACKLES DATA COMPLEXITY

On-farm technology and data management services help farmers make better decisions, boost efficiency, decrease inputs, increase yield and become more sustainable. But with so little unbiased sources of information on technology, it can be challenging to navigate.

Take the next step into the world of ag tech with new data literacy resources designed to help you maximize your farm's profitability. Tech Toolshed is a soy checkoff resource to help you maximize the technology you currently have, integrate new technology and manage the vast quantity of data available.

The soy checkoff's Tech Toolshed, in partnership with five land-grant universities, has resources centered on incorporating digital and precision agricultural systems. The goal is to provide farmers with unbiased resources to help you adopt ag technology appropriate for your farm in incremental steps and to

use the technology and its data to improve your best management practices and bottom line.

The project provides summary information for farmers to review and decide how these technologies and services may maximize profit opportunities on their operations in these six areas:

**Data Fundamentals** — How on-farm data can be used to maximize profit opportunities.

**Data Integrity** — How errors during data collection or processing may affect results and the decision-making process.

**Data Management** — How to capture, organize, and archive accurate farm data for decision making.

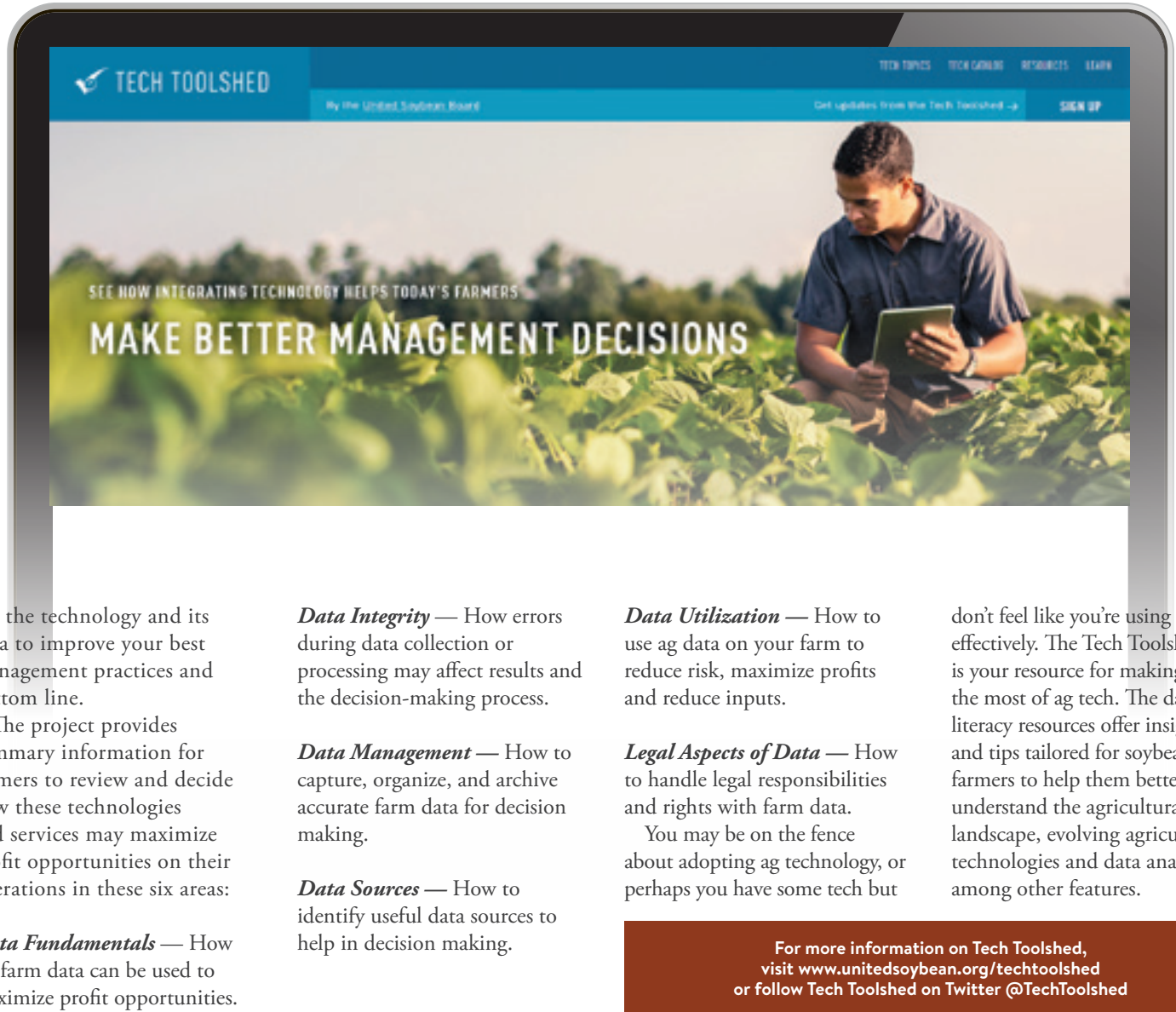
**Data Sources** — How to identify useful data sources to help in decision making.

**Data Utilization** — How to use ag data on your farm to reduce risk, maximize profits and reduce inputs.

**Legal Aspects of Data** — How to handle legal responsibilities and rights with farm data.

You may be on the fence about adopting ag technology, or perhaps you have some tech but

don't feel like you're using it most effectively. The Tech Toolshed is your resource for making the most of ag tech. The data literacy resources offer insights and tips tailored for soybean farmers to help them better understand the agricultural data landscape, evolving agricultural technologies and data analytics, among other features.



For more information on Tech Toolshed, visit [www.unitedsoybean.org/techttoolshed](http://www.unitedsoybean.org/techttoolshed) or follow Tech Toolshed on Twitter @TechToolshed



# USSEC WORKS TO CREATE **PREFERENCE FOR U.S. SOYBEANS**

The Pennsylvania soy checkoff helps to support the U.S. Soybean Export Council (USSEC), an organization that is working to differentiate and create preference for U.S. soy around the world. Through a global network of international offices and strong support in the U.S., they help build a preference for U.S. soybeans and soybean products, advocate for the use of soy in feed, aquaculture and human consumption, and promote the benefits of soy use through education. As the international marketing arm of the U.S. Soy Family, they represent U.S. soybean producers, processors, commodity shippers, merchandisers, allied agribusinesses and agricultural organizations.

The international market is the largest customer for U.S. soy: an average of 60 percent of the soy produced in this country is exported. Within the next 30 years, the world must feed 9 billion people, and a growing middle class will create more demand for higher value animal protein at an affordable price. As this trend continues across the globe, U.S. soy is well poised to accommodate the demand.

## **U.S. SOY ADVANTAGE**

Much of the work at USSEC focuses on promoting the U.S. Soy Advantage to international customers. The foundation of the U.S. Soy Advantage is centered on quality composition and consistent supply of U.S. soy and soy products, as well as the sustainability practices of U.S. soybean farmers.

U.S. soybeans have an elite meal nutritional bundle (protein, amino acids, and energy) and superior oil functionality and performance. These attributes give U.S. soy an edge over the competition with ongoing innovation in the pipeline to ensure the U.S. remains the leader in the soy industry. And, the U.S. has an abundant supply of soy that can be reliably moved from the field to domestic end users or to the coasts for export using the best transportation infrastructure in the world.

## **SUSTAINABILITY**

Demonstrating U.S. soybean farmers' sustainability performance is increasingly important to international customers who want to be assured that the products they are purchasing are sustainably grown. Currently, over 90 percent of U.S. soybeans are certified sustainable, according to the U.S. Soybean Sustainability Assurance Protocol (SSAP). The guidelines included in the SSAP set required steps for U.S. soybean farmers to continuously improve their sustainability performance. Through their commitment to continuous improvement, U.S. soybean farmers are taking care of the environment, being good citizens, and producing their crop as efficiently as possible to deliver the most sustainably grown soy in the world.

The SSAP is just one of the U.S. soy industry's key differentiators. Buyers of U.S. soy and soy products can be assured that the vast majority of farmers in America have followed guidelines for responsible farming. The constant willingness to incorporate new, environmentally friendly management strategies on U.S. farms means that others in the value chain can be confident in the value and sustainability of U.S. soybeans.



# BIODIESEL

## DRIVES DEMAND FOR SOYBEAN OIL

U.S. soybean farmers helped establish the biodiesel industry and have benefited from its growth. Through the checkoff, research and promotion efforts are funded to ensure biodiesel remains one of the most used renewable fuels on the market.

Increased demand for biodiesel boosts demand for soybeans. And because soybeans can be crushed for both oil and meal, biodiesel production also supports animal agriculture. Increased demand for soybean oil to make biodiesel increases the supply of soybean meal that can be used to make animal feed. That increased supply leads to lower feed prices paid by poultry and livestock farmers.

### Contact us at:

Pennsylvania Soybean Board  
Northwood Office Center  
2215 Forest Hills Drive, Suite 40  
Harrisburg, PA 17112

Phone: (717) 651-5922  
Fax: (717) 651-5926  
contact@pasoybean.org  
www.pasoybean.org

### For the latest news, events, research updates and more:



Visit us at [www.pasoybean.org](http://www.pasoybean.org)



Like the Pennsylvania Soybean Board on Facebook



Follow us on Twitter @PaSoybean



Subscribe to the Pennsylvania Soybean Board YouTube channel