BEST PEST CONTROL
Requires Season-Long Plan

DON'T DISMISS
DOUBLE-CROP OPTIONS

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COVER STORY:
Well-Planned Weed Control Becomes More Critical
Options are dwindling for effective weed control in Illinois soybeans. That’s why weed scientists are urging farmers to lay out a plan for full-season control. From starting clean in the spring to postemergence herbicide use, find out what the experts suggest for 2018.

Defend Against Disease Pressure
As farmers prepare for the 2018 season, soybean diseases should be top of mind. Get a glimpse at the pathogens that may affect soybeans this year, and advice on how best to handle them.

Double-Crop Opportunities Expand Farther North
Double-cropping has traditionally been used as a management tool for southern Illinois growers. But more farmers across the top two-thirds of the state are finding they can take advantage of the benefits of growing winter wheat before soybeans. Learn what works best.

Say Hello to an Old Threat
Did you know soybean cyst nematode (SCN) remains the top threat to soybean yields, even though the damage isn’t always visible? SCN is becoming resistant to the resistance of common seed genetics, and farmers must consider new strategies to deal with the decades-old threat.

New Hog Barns Bring Value to Illinois Farmers, Communities
Lately, when Illinois farmers open new hog barns, they have been inviting community members in for a closer look and to answer questions about the facilities. New barns mean more hogs. And more hogs mean greater market opportunities for Illinois soybeans.

Farmer-to-Farmer Engagement Mobilizes Advocacy
Advocacy Champions are farmers, such as Sean Arians, who talk with other farmers. They are Illinois producers who advocate on issues important to them and get the word out to others. Read on and learn more about the opportunity.
Let’s Step Up Our Management, Game

ISA spends time and checkoff resources finding new, innovative ways to help soybean farmers increase their profitability. Obviously, higher yields are one way to get there. And higher yields are predicated on the defensive management strategies we employ to protect yields.

Weeds and diseases are an annual challenge in our fields. If you took the opportunity to review the special section in our January issue, the Six Secrets of Soybean Success, you know one of the six secrets is use of fungicides, insecticides and seed treatments. University of Illinois researcher Fred Below quantified during a five-year study funded by the ISA checkoff program what plants need to get off to the right start. Protecting soybean plant foliage can help increase yields.

Early weed control is vital to protecting yield potential. In this issue’s cover story, we take a look at the basic steps farmers must take in 2018 to maintain the efficacy of our weed control strategies. New stewardship rules govern dicamba use as well. We must also consider the future of weed control and what it may mean for management decisions down the road.

Pests and diseases also are a threat to production. Read the story about ISA checkoff program-funded research regarding soybean cyst nematode (SCN) to get an idea of the strategies that may be most effective this season. Often, we assume we don’t have SCN problems because we don’t see symptoms of yield loss. But we may not be treating the right SCN issue or not treating SCN in the best way. Learn the latest tips you can employ so SCN does not steal your bushels.

Hopefully you have had the opportunity this winter to attend one or more of our ILSoyAdvisor programs, including the Soybean Summit or our new Better Beans regional seminars. Some of those continue this month, along with the Resilient Farmer Road Show and Commodity Classic. Take advantage of these continuing education meetings as you can. I also encourage you to visit the ILSoyAdvisor.com website and see what new webinars are scheduled.

The ISA board of directors will review new proposals soon to invest in those projects that will help you step up your management game even more. We want to optimize your chances for success by helping you leverage the tools and technology that will bring the best returns to your farm. Have ideas? Email me at ilsoy@ilsoy.org.

LYNN ROHRSCHEIB
ISA Chairwoman
Smart Farming Helped Boost My Soybean Production and Made Me a Better Farmer

> By Jeff Keiser

As a lifelong farmer from a long line of lifelong farmers, inherited wisdom has taught me every year is different. But, perhaps like many soybean producers in Illinois, this season’s weather prompted me to scratch my head and wonder whether I can ever recall conditions quite like this.

One of the lessons my dad instilled in me was that if I consistently learned from my experiences and adapted my farming strategy to preempt and react to seasonal differences, I would eventually be a better, maybe an even smarter, farmer. While I still lean on friends and family for advice and inspiration in my decision-making, leveraging advanced technologies has helped me make real progress, despite the plans I may make based on the previous crop season.

For example, most of the time I plant soybeans one to one-and-a-half inches deep. Now, with all the advanced weather and soil information I have available on each of my fields, I can adjust the depth based on current soil moisture levels – as compared to an historical field average – and what the forecasted soil and weather conditions will be over the next two weeks. In short, the pinpoint accuracy I have through this technology helps me make smarter decisions based on actual scientific data, rather than the proverbial finger in the wind.

This information guides me through the seed germination stage and into crop emergence, helping me match each of the variety’s performance characteristics to the soils in each field. I then can formulate a strategy for which fields and varieties to plant first and which ones to plant last.

It doesn’t stop there. In my earnest quest to discover new applications of this technology, I’ve learned to use this same data to manage crop protection application plans. Since the same technology tracks how fast my soybean crop emerges across my farm and plant growth stage, I can determine which fields to spray and what hours during the day or night will provide the best application windows. This helps minimize the risk of off-target drift and provides me with all the information I need to select the most effective products, while managing overall cost. It also helps me be a better neighbor, which may just get me a cup of coffee at the corner café.

Harvest season also can be a challenge. Previously, I had to send the combine around to cut off an outside swath or two to see which fields were ready. I now can leverage crop forecasting and grain drydown technology to achieve better outcomes. The information includes details on when the crop is mature, factoring in weather and soil conditions, so I know when the crop will be at optimal grain moisture. This saves me time and helps me communicate my plans at the elevator.

With all this in mind, while I’m not yet sure if I’m a considerably smarter farmer, I am certain using technology to practice smart farming has helped me make far better decisions.

“I am certain using technology to practice smart farming has helped me make far better decisions.”

Jeff Keiser
vice president of strategic sales and marketing at Iteris Inc.

In addition to farming, Jeff Keiser is vice president of strategic sales and marketing at Iteris Inc. Iteris serves the ag industry through its ClearAg platform, which combines weather and agronomic data with proprietary land-surface modeling and machine learning to solve complex agricultural challenges. Keiser is based in Urbana, Ill., and has spent 25 years working on technology applications in farming and agribusiness to improve efficiency and generate value.
Well-Planned Weed Control Becomes More Critical

> BY BARB BAYLOR ANDERSON

While dicamba may have captured the lion’s share of soybean industry attention lately, Illinois soybean farmers are reminded there are other weed control issues just as important to manage.

“This is a very critical time for weed control. Options are dwindling in 2018 for more soybean acres with even fewer effective options than we had in 2017,” says Aaron Hager, University of Illinois weed scientist. “Farmers must use the tools and techniques they have and do as much as possible to protect their weed control options. We’ve learned that once a product is gone (ineffective), it’s gone.”

Hager warns farmers to not overlook any weeds, either. “We have rampant resistance,” he says. “Once you choose varieties, everything you do after that should be an investment in strategies that will allow those varieties to express full yield potential. Protect your seed investment.”

“START CLEAN IN SPRING

That protection begins prior to planting with a well-planned weed control program. Regardless of tillage system, Hager stresses that farmers must give seed its best start with clean fields.

“Do not plant into any weed vegetation, or you may have to replant,” he says.

For farmers who need to terminate cover crops, Andy Heggenstaller, DuPont Pioneer agronomy research manager, says winterkilling, tilling, mowing and herbicides all have advantages and limitations. Due to simplicity and efficacy, herbicides are the preferred method of many growers.

“If you terminate cover crops with herbicides, spray the cover crop before it begins reproductive growth for best control. Avoid

“This is a very critical time for weed control. Options are dwindling in 2018 for more soybean acres with even fewer effective options than we had in 2017.”

AARON HAGER
University of Illinois weed scientist
spraying translocated herbicides on cloudy or cold days, which may slow or stop cover crop growth and uptake," he says. “Spraying should occur two to three weeks prior to grain crop planting, so consult labels for information on plant-back restrictions.”

**MAXIMIZE RESIDUAL HERBICIDE USE**

Residual herbicide selection and use is a preplant strategy supported by Hager.

“Use residuals as close to planting time as possible, not two to four weeks ahead of planting,” he advises. “You want to extend residual control as late into the season as possible. Farmers have limited postemergence herbicide options for later weed control, especially for waterhemp.”

Daniel Davidson, PhD, and Illinois Soybean Association (ISA) research and technical coordinator, says use of residual herbicides covers a broad spectrum of weeds and aids in weed resistance management by incorporating additional site(s) of action. He offers these tips:

- Select a soil-residual product with a solution for problem weed species present.
- Pay attention to products in a premix, the amount of active ingredient and use rate.
- Herbicides applied within 7 to 14 days of planting control weeds longer into the growing season compared with applications made several weeks before planting.
- Applying residual herbicides labeled for use after crop emergence following emergence extends residual weed control for a few additional weeks, allowing more opportunity to make a post application later.
- Higher application rates generally provide a higher level of weed control longer into the growing season but don’t provide season-long control.
- For a soil-applied herbicide to be effective, the herbicide needs to be available for uptake by the germinating weed seed or weed seedling.
- Precipitation dissolves a herbicide into soil solutions, moving it down and creating a zone of protection below the soil surface. If there is no precipitation before planting, light tillage can move the herbicide into the soil and help make it available for uptake.
- Herbicide selectivity arises from the crop’s ability to break down (metabolize) a herbicide to a nonphytotoxic form before it causes injury. When the crop is growing under favorable conditions, it rapidly metabolizes the herbicide before excessive injury occurs.

**PLAN FOR POST APPLICATIONS AND BEYOND**

Following emergence, Hager suggests farmers begin to scout fields and determine when the best time is for post herbicide applications. Weeds should be no taller than three or four inches tops.

“Be prepared to hand-weed resistant Palmer amaranth or other tough weeds,” he says. “One thing we know for sure is that every new jug of herbicide we open will eventually fail. They all do, and there are no new products in the pipeline. We have to use what we have wisely.”

Adam Davis, University of Illinois and USDA Agricultural Research Service ecologist, and George Frisvold, University of Arizona economist, are evaluating whether the industry has reached a tipping point in ability to control weeds with the herbicides currently on the market.

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**Double-Check Dicamba Rules**

The U.S. Environmental Protection Agency (EPA) has issued revised labels for the three dicamba products used on soybeans — Engenia, XtendiMax and FeXapan. They all now are Restricted Use Pesticides, so only certified applicators may purchase the products. All applicators must be trained on proper use of the products and have documentation of training.

Since non-dicamba-tolerant soybeans are extremely sensitive to dicamba, Aaron Hager, University of Illinois weed scientist, and several industry partners, have developed Best Management Practices (BMPs) to support stewardship in compliance with the product labels:

- If you plan to have Xtend soybeans treated, plant them adjacent to other Xtend soybeans, adjacent to corn, or adjacent to non-sensitive areas on all sides of the Xtend soybeans.
- Communicate with neighbors and know what they are planting. Plant Xtend soybeans at least half a mile from high-value, sensitive specialty crops and a quarter mile from sensitive soybeans such as Liberty, Roundup Ready, Enlist and non-GMO, if possible.
- Discuss your anticipated planting date and location with your applicator, and identify on a map locations of nearby sensitive soybean fields or sensitive specialty crops. Consult Driftwatch.org to identify nearby specialty crops.
- Start with a clean system. It takes only 1/20,000 of a labeled rate of dicamba to cause symptoms in sensitive soybeans. No trace of AMS or nitrogen-containing products should be present in the application system when applying dicamba products to soybeans.

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*Weed specialists advise be prepared to hand-weed resistant Palmer amaranth or other tough weeds.*
“I believe if we fully lost chemical control of certain weeds, and if farmers continued with the corn-soybean rotation, they’d be forced to reduce acreages as they spend more time and money managing weeds. And the cost of the end product, our food, would go up as well,” Davis says.

“In some areas, we’re one or two modes of action (MOA) away from completely losing chemical control for certain weeds. In east central Illinois, for example, common waterhemp is resistant to five out of the six relevant MOAs in a corn-soybean rotation,” Davis continues. “And there are no new herbicide MOAs coming out. There haven’t been for 30 years.”

Glyphosate-tolerant crops may have added to the problem. Davis believes their availability led to greater reliance on chemical solutions to weed control, rather than the diverse management practices that used to be the norm. He proposes a “middle way” solution to bridge the gap between corn-soy rotations with heavy herbicide inputs and a diversified organic system.

“Right now, we have a dominant system where we have two summer annuals following each other. Because we don’t have any change of phenology (timing of development) of the main crop, we have the same weed spectrum in both crops,” he says. “If you introduce a small winter grain or a forage legume into that system, you begin to make it difficult for summer annual weeds to become dominant. You can get about 90 percent there just with a good crop rotation.”

Davis has shown farmers can reduce herbicide use by 90 percent in diversified systems and get the same amount of weed control. “It’s not hard to do,” he says. “You build in things like weed suppressive cultivars, banded herbicides, row spacing, cultivation, harvest weed seed control, and all these tactics together can add up to really effective weed management systems.”

Farmers will find timely information from these links as well:
- [http://iwilltakeaction.com/](http://iwilltakeaction.com/)
- [https://www2.illinois.gov/sites/agr/Pesticides/Pages/Dicamba.aspx](https://www2.illinois.gov/sites/agr/Pesticides/Pages/Dicamba.aspx)
“In the current market, the potential for planting soybeans early or planting soybeans-on-soybeans is increasing,” says Jason Bond, Southern Illinois University plant pathology professor, adding both require more planning and management for disease control.

“Planting early increases yield potential, but also the likelihood for poor emergence conditions and higher seedling disease pressure,” he explains. “And, disease pressure is more pronounced in continuous soybeans. Many soybean pathogens don’t go to corn, but can build in continuous soybeans.”

Bond encourages farmers to consider what is happening in the soil that impacts diseases during the winter to anticipate challenges. “For example, pathogens survive well during a cold, dry winter, while frequent temperature swings damage spores,” he says.

In all conditions, farmers should select soybean varieties that best fit their fields.

“To spread risk, choose multiple varieties that aren’t the same relative maturity,” says Todd Steinacher, AgriGold regional agronomist in west central Illinois. “Then manage those varieties to protect yield potential from diseases throughout the season.”

SEED TREATMENTS PROTECT SEEDLINGS

Seedling pathogens like *Pythium*, *Phytophthora*, *Fusarium* and *Rhizoctonia* threaten soybean stand and emergence, making seed treatments a must, according to Bond. He recommends broad spectrum products with multiple modes of action.

Steinacher agrees, noting the wide range of soybean treatment products available.

“Soybean seed treatment options can be confusing,” he says. “Seed can come treated from seed companies, or be treated by local dealers. Understanding options helps farmers accurately compare cost and control to select the best option for their conditions.”

He recommends asking questions like these:

* What are the active ingredients?
* What diseases does each mode of action target?
* At what rate was the seed treated?
* What is the replant or protection policy?
* If adding to something treated upstream, how will the products work together?

“Treatment costs vary, but paying half as much may provide half as much active ingredient, which means less disease protection,” Steinacher adds. “For accurate comparisons, farmers need to know what they are buying.”

WATCH FOR FOLIAR DISEASES

Bond says continuous soybeans have a greater chance of experiencing the same foliar disease pressure from 2017, even in different varieties. “Foliar soybean diseases are more likely to occur where they were last season, especially in no-till soybean residue,” he says. “Wind also moves foliar spores, so pressure in neighboring continuous soybean fields can impact nearby crops.”

He recommends these steps for managing pressure:

* Monitor the weather. Diseases thrive in damp conditions and at different temperatures.
* Scout carefully for disease symptoms.
* Track yield potential for economic treatment thresholds.

Healthy soybean leaves maximize yield potential as well. Steinacher describes soybean leaves as solar panels that produce energy to make yield. During the R3 and R4 stages, the stored energy goes into producing and filling pods.

“Protect as much of the plant as possible,” he recommends. “The easiest way to lower production costs is to increase yield.”

Control Weeds in Continuous Soybeans

“Since soybean production systems are being challenged with herbicide-resistant weeds and with fewer modes of action available, don’t plant the weediest fields to continuous soybeans.”

**JASON BOND**
Southern Illinois University plant pathology professor

“Change the weed control program in continuous soybeans. Don’t use the same chemistries as last season.”

**TODD STEINACHER**
AgriGold regional agronomist

Effectively preparing for disease pressure may help Illinois farmers take advantage of any potentially high soybean returns in 2018.
Double-Crop Opportunities Expand Farther North

> BY MIKAELA WIELAND

Wheat acres make up only about two percent of total Illinois crop acres planted. However, that could change someday soon. More farmers across the top two-thirds of the state are finding they can take advantage of the benefits of growing winter wheat as a double-crop before soybeans.

Double-cropping has traditionally been used as a management tool for southern growers. But it can be a profitable option for other farmers farther north for several reasons.

“The simple answer is that more acres of wheat provide more options for farmers. Wheat is a great solar collector that all farmers need to consider,” says Ken McClintock, Limagrain Cereal Seeds Midwest regional sales manager, who farms near West Point, Ill.

“On my farm in 2016, the double-crop system of wheat and soybeans turned a profit of $913 per acre. Wheat sold at $4.80 per bushel for 78 bushels per acre, plus soybeans sold at $9.80 per bushel for 55 bushels per acre,” says McClintock. “My full-season soybeans made $646 per acre, which was $9.80 for 66 bushels per acre. The system even beat corn. At $3.28 per bushel, I earned $757 per acre for 224 bushels per acre.”

Since farmers need to plant corn and soybeans on time to be most profitable, access to earlier double-crop wheat varieties creates an opportunity to hit that planting mark and level out the workload.

In addition to better profitability, McClintock notes wheat acts as a winter cover crop, holding the soil in place and improving soil quality and water infiltration. It also helps interrupt weed reproduction and improves future corn and soybean yields. In fact, he notes farmers may see increases of four bushels per acre in soybeans and 15 bushels in corn following a wheat crop.

When soybeans are planted, they must be managed as closely as full-season beans. “The only difference between a full-season soybean and a double-crop bean is planting date,” says Kelly Robertson, crop consultant and certified crop adviser from Benton, Ill. “A bean is a bean.”

McClintock and Robertson agree farmers should approach double-cropping as a system and manage it like other full-season cash crops. Control the straw after harvest and plant immediately after wheat is cut. Choose the right soybean, taking into account planting date.

Even farmers who choose not to double-crop beans behind wheat, due to timing or weather, may find wheat offers in-season flexibility. Based on weather, markets or other in-season variables, farmers can decide to harvest the wheat cash crop or use it solely as a cover crop.

Winter wheat can act as a winter cover crop, holding the soil in place, improving soil quality and water infiltration and interrupting weed reproduction.
ISA Research Aids Management Decisions

David Droste, ISA director from Nashville, Ill., and experienced double-crop grower, advises farmers to take advantage of ISA checkoff-funded research to help make the best double-crop management decisions. Research confirms ideal planting times for specific areas.

“Checkoff research allows us to learn the best maturity of soybeans to plant, the best plant population and best fertilizers for our double-crop system,” Droste says. “Double-crop success is very achievable, highly profitable and environmentally friendly—and resources are available for all farmers to achieve increased profitability and high yields.”

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David Droste

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Always read and follow label instructions.
It may surprise Illinois farmers to know soybean cyst nematode (SCN) remains the number one soybean yield robber, even though the damage can’t be seen.

“Twenty years ago, growers saw obvious visual damage from SCN,” says Greg Tylka, Ph.D., professor in Iowa State University’s Department of Plant Pathology and Microbiology. “Genetic resistance and better management have minimized visual damage, but the pest still takes significant yield.”

In fact, SCN is becoming “resistant to the resistance” of common PI 88788 genetics, says Jason Bond, Ph.D., Southern Illinois University Carbondale Department of Plant Soil and Agricultural Systems plant pathologist. “We’ve seen a fairly rapid shift in SCN genetics,” he says. “Most modern varieties provide some control, which minimizes visual damage, but we estimate up to 30 percent yield reduction even without visuals symptoms.”

He suspects about 88 percent of Illinois SCN populations show resistance to PI 88788 varieties.

**CAN’T IMPROVE WHAT YOU DON’T MEASURE**

New research funded by the ISA checkoff program is looking at cover crops, including winter wheat, as another way to help reduce SCN egg populations.

“A University of Kentucky study indicated that no-tilling soybeans into wheat stubble suppressed SCN egg production and reduced counts,” says Dan Davidson, Ph.D., ISA research technical coordinator.

The late University of Illinois Extension educator Mike Plumer also documented SCN egg reductions following grass cover crops. “These were limited trials, but if we can repeat these findings, we’ll help show that adding wheat or grass covers to the rotation before soybeans can provide another tool for managing SCN,” says Davidson.

**SAMPLE TO BE SURE**

Baseline data from post-harvest soil samples showed SCN egg counts ranging from 0 to 37,600 eggs per 100 cubic centimeters of soil, with 14 of the 22 samples having more than 2,000 eggs—a level that will reduce yield without management.

The wide ranges surprised even the experts. “In 17 years of in-field trials, I’ve never seen such wide swings in sample counts,” says Bond. “Counts of 2,000 or above, from about a half cup of soil, require increased management. And this range in egg counts reinforces how important it is to test for SCN every couple of years.”

The fall counts will be compared to spring populations from soils with and without winter wheat to determine any effect from the grass/wheat cover.

**SCN Management Recommendations**

Experts recommend farmers work with trusted advisers to develop an SCN management plan. Consider these practices:

- Test your fields to confirm SCN numbers.
- Rotate to non-host crops between soybeans.
- Consider a seed treatment nematicide.
- Rotate resistant varieties. SCN can adapt to individual varieties, so rotating—even to another PI 88788 resistant variety—may help reduce SCN populations.
Whether it’s improving soybean meal to outperform the competition or sharing the growing opportunity of high oleic soybeans, the soy checkoff has been working behind the scenes to help farmers satisfy their customers’ needs. We’re looking inside the bean, beyond the bushel and around the world to keep preference for U.S. soy strong. And for U.S. soybean farmers like you, the impact is invaluable.

See more ways the soy checkoff is maximizing profit opportunities for farmers at unitedsoybean.org
New Hog Barns Bring Value to Illinois Farmers, Communities

New hog barns are popping up across Illinois. For some, it’s an opportunity for younger generations to farm. For others, it’s a way to diversify and ensure more demand for their crops.

“Hog farming has been in my blood as long as I can remember,” says third-generation farmer Dave Meurer, who recently opened a new barn near Ashton, Ill. “It’s exciting to have my kids interested in hog farming. The new barn provides opportunity for them to carry on the legacy.”

Lately, when an Illinois farmer opens a new barn, they have been inviting community members to come and see the barn and get their questions answered about the facility and the industry.

“Open houses provide community members with a first-hand look at hog barns and give farmers the opportunity to share the value their barns bring to those communities,” says Tim Maiers, communications consultant for the Illinois Livestock Development Group.

In 2017, farmers held 12 open houses for new livestock facilities, which was more than the number of open houses held in the previous two years combined.

**MORE SOYBEAN DEMAND**

In the past year, farmers filed at least 85 Notices of Intent to Construct (NOITC) throughout the state for new or expanded hog barns. This is the first step in abiding by regulations for new barns, where farmers provide location, size and type of barn they plan to build.

However, growth within the Illinois livestock sector has been outpaced by neighboring states in recent years. According to a study funded by the soybean checkoff, between 2005 and 2015, Illinois saw a nearly 38 percent increase in hog numbers. Neighboring states, Iowa and Indiana, increased hogs by 47 percent and nearly 40 percent.

New barns mean more hogs. And more hogs mean greater market opportunity for Illinois soybeans, as hogs are the top consumers of soybean meal.

“It’s no secret livestock are the top customers for soybean farmers in Illinois,” says Meurer. “As someone who raises both crops and livestock, I know that both are of value to each other.”

For example, calculations using data from the checkoff study finds a 2,400-head hog barn demands roughly 344 tons of soybean meal each year from 11,465 bushels of soybeans. While hog farmers feed a nutritious diet, Illinois soybean farmers benefit from local crop demand.

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**Soybean meal use in Illinois**

Pigs consume nearly three-fourths of the soybean meal fed in Illinois. Poultry eats about 13 percent, and beef and dairy cattle consume another 12 percent.

74% 13% 12% 1%

GREENER COMMUNITY IMPACT

More hog barns and animal agriculture also contribute economic value to local communities and the state of Illinois by adding income, jobs and value to the local tax base.

“The community benefits greatly from new barns like ours,” says Meurer. “Any time a new building goes up, it adds property value and a chance to keep young people in our communities.”

“Animal agriculture plays a key role in the economic health of our communities,” says Austin Rincker, farmer from Moweaqua, Ill., and ISA Marketing Committee chairman. “That’s why local community members can support expanding barns. New hog barns benefit current and future Illinois farmers as well, so with each new barn comes opportunity for younger generations and markets for crop farmers.”

Three Farm Credit cooperatives united to serve rural America like never before.

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Three generations of the Dave Meurer family celebrate opening their new hog barn near Ashton, Ill., in December 2017.

Chad and Julia Krogman and their sons Titus, 2, Hezekiah, 4, and Brayden, 6 months, celebrated the opening of their new 2,450-head hog barn during an open house in November 2017.
FARMERS INTERACT WITH SOYBEAN SUPPLY CHAIN

Illinois Soybean Association (ISA) farmer leaders find the food supply chain is becoming increasingly complex, with unique pressures at each step in the chain. From processors to food companies, demands are coming from all angles – some legitimate, many not – and the responses tend to have a significant impact on Illinois soybean farmers over time. ISA leaders believe research sheds light on who these influencers are and the reality the supply chain faces in overcoming food production obstacles. It also opens the door for opportunities to engage in a meaningful way to establish more truth in the food system.

**TAKE ACTION**

- **Share your story.** Farmers are trusted sources and experts in their fields. With most consumers four generations removed from the farm, growers have a unique perspective on how food is grown and raised.
- **Be relevant.** Topics like local, sustainable and clean ingredients are very popular right now. Connect by explaining how farmers contribute to a safe, healthy food supply.
- **Ask questions.** This may help farmers uncover concerns and provide clarity and transparency on hard topics.

**FARMERS**

- According to the Center for Food Integrity, consumers rank farmers in the top 10 for most trusted sources about food-related issues, a group that also includes doctors, dietitians, friends and family.

**PROCESSORS**

- Processors adapt to market demands. The National Center for Biotechnology Information says food manufacturing equals about 16 percent of all value added in the food supply chain, the second-highest after food service.

**BRANDS, RETAIL FOOD SERVICES**

- Consumer trust in food companies, retailers and grocers has increased by 14-17 percent since 2012, according to a FoodThink report, making them a trustworthy resource for consumers.

**CONSUMERS**

- The 2017 Edelman Trust Barometer shows that, while consumers’ trust in NGOs has declined by two percent from 2016 to 2017, NGOs are still trusted more than businesses, media and government.

- According to the 2017 Edelman Trust Barometer, consumers trust “people like them” (60 percent) more than experts, including CEOs (37 percent), government officials (29 percent) and non-governmental agencies (NGOs 43 percent). Giving consumers opportunities to understand that farmers are “people like them” will increase trust.
Where do my soybean checkoff contributions go?

Take a close look at the settlement check from your first purchaser. You’ll see a deduction equal to one half of one percent of your soybean proceeds. Do you know where that goes?

- Illinois soybean farmers contribute a portion of their sales to the checkoff program. **Half of the collected funds** are distributed to the Illinois Soybean Board to fund state activities. The other half is given to the United Soybean Board (USB) to fund national research and promotion.

- **The Illinois Soybean Board** is part of the Illinois Soybean Association (ISA), the statewide organization that strives to enable Illinois soybean producers to be the most knowledgeable and profitable soybean producers around the world.

- **The ISA Board of Directors** consists of 24 volunteer farmers who determine how checkoff (and non-checkoff) funds are spent.

For the 2017-18 fiscal year, nearly $14 million will be invested in checkoff programs. The programming budget is broken down into these areas at the following percentages:

- **Marketplace**: 41% - Promote Illinois soy for export markets, biodiesel and animal agriculture use.
- **Leadership**: 24% - Increase effective, progressive leadership in the organization.
- **Efficient Product Delivery**: 17% - Ensure Illinois soy reaches its intended destinations efficiently.
- **Farmer Profitability**: 16% - Optimize through business management, yield and sustainable practices.
- **Influence and Reach**: 2% - Expand through member, corporate and industry efforts.

For more information about the programs and projects where soybean checkoff dollars are invested, visit [www.ilsoy.org](http://www.ilsoy.org).
Future is Here, Just not Evenly Distributed

New year, new outlook. As part of its industry leadership, the ISA checkoff program held a summit late last year to bring together agriculture technology executives and to discuss the future, smart farming and its effects on the soybean industry. Topics included precision agriculture, artificial intelligence and machine learning advances.

One of the issues presented by Joel Wipperfurth, ag tech applications lead for Winfield United, involved the “hype curve.” Wipperfurth says the curve is made up of technologies as outlined on the chart. Not all of the technologies make it through the cycle at the same pace.

“Some technologies take years to surface on the plateau of productivity,” he says. “But the curve offers great perspective. When you look at the peak of the hype, you see all of the technologies that are being featured in publications, talking about how promising and valuable they will be.”

Wipperfurth says the curve’s trough of disillusionment shows where the rubber meets the road – the technology’s hype is gone and a sustainable business model must surface.

“It’s all about input per bushel. We’re in a mathematical era of agriculture as producers shift their focus towards numbers-driven decisions,” he says. “The winning growers will be defined by how well they use technology.”

Wipperfurth believes the curve has regional nuances, as farmers and retailers in different areas adopt technology in different ways.

“The future is here. It is just not evenly distributed,” he says.
It’s easy to make more on your soybeans.

Find the connections you need to see your profits grow. Thankfully, SoybeanPremiums.org already did the hard work of finding them for you. Food-grade, identity-preserved and non-GMO, connect with premium programs and buyers in your area today.
Illinois Soybean Farmers Assume National Leadership Roles

Dan Farney, soybean farmer from Morton, Ill., and past Illinois Soybean Association director, was elected to serve as treasurer for the United Soybean Board this year. Farney is one of four Illinois farmers who sits on the national board. Ron Moore, Roseville, Ill., completed his term as president of the American Soybean Association (ASA) last year, and will sit as ASA chairman in 2018. Moore also is a previous ISA director and ISA chairman. In addition, ISA garnered another seat on the ASA board, which was filled by ISA director, Jered Hooker, Clinton, Ill.

Biodiesel Now Included in Top Tier Diesel Fuel

Growmark, Inc., now is providing Top Tier Diesel Fuel blended with biodiesel. Top Tier performance standards are gaining popularity across the country, helping vehicle owners ensure they purchase a clean, high quality fuel. As one of the only Top Tier Diesel Fuel providers in the country, Growmark is using cleaner burning biodiesel to increase the fuel quality even more.

Top Tier Diesel Fuel was developed to provide better performance, in turn helping the diesel fuel retailers, auto and engine manufacturers, and those who drive or use diesel-powered equipment. Relative to the ASTM D975 and D7467 specifications for diesel and biodiesel blends, the Top Tier Diesel Performance Standard requires detergents to reduce deposits on fuel injectors, improve lubricity, improve fuel stability, and provide more protection against water and particulates that may be in the fuel before dispensing it into vehicles and equipment.

Food Evolution Film Changes Minds

U.S. Farmers & Ranchers Alliance (USFRA) hosted a screening of “Food Evolution” at the Hammer Museum in Los Angeles, Calif., where 150 viewers watched the film and had follow-up panel discussion. The film, from Academy Award nominee Scott Hamilton Kennedy, goes to Hawaiian papaya groves, Ugandan banana farms and Iowa cornfields to investigate the polarizing debate about GMOs in food and farming.

Before showing the film, Kennedy asked the audience members to raise their hands if they thought GMOs were unsafe for them and their families. After watching it, he asked them the same question. Before the movie, 95 percent of the audience raised their hands, and after the movie, only 10 percent made the same gesture underscoring the film is changing minds.

Calendar of Events

Last Better Beans Series Event
> February 22 · Fairview Heights, Illinois

Resilient Farmer Road Show
> February 13-21

Commodity Classic
> February 27-March 1 · Anaheim, California
From the first sale of U.S. soy to China to the release of the first soybean oil-based tire, the soy checkoff has been behind the scenes, growing new opportunities and customers for the soybeans you produce. We’re looking inside the bean, beyond the bushel and around the world to keep preference for U.S. soy strong. And for U.S. soybean farmers like you, the impact is invaluable.

See more ways the soy checkoff brings value to farmers at unitedsoybean.org
Farmer-to-Farmer Engagement Mobilizes Advocacy

Q&A WITH ADVOCACY CHAMPION SEAN ARIANS

Nearly one-quarter of all letters submitted to legislators and regulators through the Voice for Soy legislative action network last year were the result of Advocacy Champion peer engagements.

Advocacy Champions are farmers talking with other farmers. They are Illinois soybean producers who advocate on issues important to them and get the word out to others to do the same. When a key piece of legislation or new regulation arises – such as the Renewable Fuel Standard (RFS) or biodiesel tax credits – these farmers take to their phones and computers to mobilize a grassroots effort to help protect farmers.

Sean Arians goes by one of those Advocacy Champions. A soybean farmer near Morrison, Ill., he also goes by @ag_guy04 on Twitter and does regular #SupperWithSean video chats. Below, Arians talks about the importance of advocacy and why others should share their voices.

ISG: WHY DO YOU COMPLETE VOICE FOR SOY ACTION ALERTS?
ARIANS: I think we have a great story to tell in agriculture. Our message to legislators is unique because we’re the ones who live the impacts of policy decisions every day. Our voices and our interests should be reflected in the policies that affect our bottom lines.

ISG: WHAT DO YOU WANT LEGISLATORS TO KNOW ABOUT HOW YOU FARM?
ARIANS: I am carrying on a family legacy – one that’s now supporting the fourth generation. I get to work the soil and see it grow. In farming, like many other industries, I challenge the way I’ve done things in the past and if there’s a better way to do them now and in the future. I learn and take on practices that help us improve productivity and protect the environment. Sustainable farming is as important now as it was to the generation that settled this farm.

ISG: HOW CAN SOCIAL MEDIA BE USED FOR ADVOCACY?
ARIANS: Social media can be a great tool for advocacy. Twitter, especially, seems to be a gathering place for farmers to respond to what they’re seeing in the industry and share what’s happening on their farms. It’s also very active. Whether it’s sharing a link to a Voice for Soy action alert or a link to a FarmWeek article, farmers trust other farmers and want to support this industry and see it thrive. That includes taking a stand for it when necessary. Social media is an easy way to both get the word out and take action.

ISG: WHAT IS ONE REASON YOU’D TELL A FRIEND TO TAKE ACTION FOR VOICE FOR SOY?
ARIANS: It’s an all-hands-on-deck type of thing. We have a unique message to share with legislators and regulators – the decisionmakers who impact the policy and regulations that affect our farms. Helping them hear our story is vitally important to the success of our industry.

“Like our population as a whole, decision makers are becoming less connected to the farm. We need to share our story and why our job is so important to the state and to the world”

-Sean Arians

Learn more about Arians and other Advocacy Champions on www.voiceforsoy.org/champions.
WHERE DO YOU SEE U.S. AGRICULTURE HEADED?

I am concerned about the future from the aspect of who will be farming. Right now, we have an oversupply of commodities and an increasing number of big farms. Competing for ground is more cutthroat than it used to be. I don’t know what the solution is to balance out all of the crop supply issues with who will farm, but I don’t expect changes in the current trend.

WHAT ARE YOUR PLANS FOR YOUR FARM IN THE FUTURE?

My plan for the future involves being able to farm in the same way for a few more years. At some point, my son will be able to retire from his teaching job and take over the responsibilities of running the farm. Looking at the future, this operation could support more acres and may possibly grow in size and scope. On-farm grain storage and the ability to deliver our stored crop to the terminals will always be the goal. Solar or wind power also are considerations.

If you are interested in serving on the ISA board of directors, please contact Angel Terrell about openings at 309-663-7692 or terrella@ilsoy.org, or visit www.ilsoy.org/about-us/leadership/opportunities. The process of filling positions has specific deadlines and is underway.
ADD VALUE AND YEARS TO YOUR OPERATION.

This is the easiest math you’ll do today: Animal agriculture consumes 97 percent of all U.S. soybeans. Adding livestock to your soybean operation creates built-in demand for your crop. Diversifying your farm to include animals can also make a positive economic impact on your local economy. Who doesn’t like that?

IT MAKES ECONOMIC SENSE.
Commodity price fluctuations and high land values can make it hard for crop farms to succeed from one generation to the next. Livestock can create additional revenue streams and labor needs, which is good news when you want to keep (or make) farming a proud family tradition.

Animal agriculture also sometimes creates enough work to provide employment opportunities in small towns that otherwise see jobs moving away.

RETHINK THE RISK.
The livestock market has its ups and downs, no doubt about it. The good news on that front is that there are integrators willing to partner with interested crop farmers with land to share.

Integrators retain ownership of the livestock and the associated risks. You still control your crop acres and in return for hosting livestock, you’re able to put the animals’ manure to work in your fields.

KNOW YOUR MANURE.
It’s no secret: Manure builds healthier soil, resulting in higher yields at harvest. That’s why it’s often called “liquid gold.” That’s also what makes it so valuable to crop farmers. Generating and applying your own livestock manure can represent a full value credit of up to $100/acre.

DON’T JUST TAKE OUR WORD FOR IT.
Cavan Sullivan from Petersburg Poultry Processing in Petersburg, Illinois, says this about the value of pairing a livestock processing facility with his family’s soybean operation: “One of our big motivations in this project is how do we help farmers turn their commodity crops, that are pennies a pound, into something of much higher value? Livestock has a greater capacity to convert grain into gain.”

ILLINOIS CAN HELP.
Interested in taking advantage of the benefits of livestock production? Illinois offers a variety of valuable resources to get you started.

Contact Nic Anderson at 217-622-7491 or ildg@ilfb.org to learn more.

Visit ILSOY.ORG/ANIMALAG to download planning materials and other guides or call 309-663-7692 to request hard copies by mail.

The Illinois Soybean checkoff program wants to see you succeed.