HIT THE ROAD FOR CONSERVATION TIPS

MANAGE RESIDUE WITH NO COST

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COVER STORY:
Hub of Market and Influencer Access
The Chicago office for the Illinois Soybean Association (ISA) checkoff program will help strengthen soybean farmers’ presence in the center of the agriculture industry. Learn how it will be used for farmers to meet with customers and build relationships with industry contacts.

Sustainability Road Trip
Time to pack the pickup and hit the road. The end of summer offers a wealth of opportunities for gathering new ideas to take back to the farm. At conservation-focused field days this year, you’ll learn management practices to improve soil health, water quality and overall profitability.

Implement a No-Cost Crop Residue Management Strategy This Harvest Season
When summer fades and harvest rolls around, it is time to start thinking about a crop residue strategy. The experts say farmers should evaluate the possible benefits, as well as determine what may or may not pay. Get tips on how to get started.

Trade Pact Uncertainty Clouds Soy Export Outlook
Withdrawal from the Trans Pacific Partnership (TPP), ongoing discussion about the North American Free Trade Agreement (NAFTA) and various bilateral trade talks send mixed signals to the soybean market about the potential impact on U.S. soy exports. See what economists predict could happen to the export outlook.

Pioneering Soy-Based Tuna Feed
Feeding tunas may be the most profitable form of aquaculture today. And with assistance from the ISA checkoff program, the feed ration picture looks even brighter. Find out what three trials with various soy-based diets reveals for the future of the market.

LEADER PROFILE:
Soy Ingredients Customer Marc Schulman
Marc Schulman is president of The Eli’s Cheesecake Company, a 37-year-old Chicago business that has evolved from a local favorite to reaching cheesecake lovers across the United States. As a family-owned business, Eli’s Cheesecake supports the community, Illinois farmers and small businesses. Every day, soy-based ingredients are used to make Eli’s bakery items.
Taking Sustainability to the Next Level

As I talk with farmers from around the state, I am impressed with the emphasis placed on continually tweaking production practices that improve yields, but also enrich soil health and water quality. Those environmental efforts show customers we are serious about sustainability.

In fact, those improvements help set Illinois farmers apart. The Illinois Soybean Association (ISA) farmer attitude survey completed earlier this year, which is funded in part by the ISA checkoff program, confirmed my observations. For example, the most common practices voluntarily adopted to reduce nutrient losses are soil testing and reducing tillage. Illinois farmers also reported they are increasing use of reduced tillage, precision ag and cover crops.

Sustainability is a broad word to cover many actions. ISA defines it as growing more bushels per acre to meet future needs while focusing on improving soils and water. When we increase access to safe food and feed and renewable fuels that reduce environmental impacts, we also improve our well-being and profitability, as well as that of those around us.

ISA farmer leaders keep these objectives in mind when we review and make decisions about funding projects. We want to optimize farmer profitability through business management, yield and conservation practices and also increase use of these practices.

We work on projects that make sure farmers are aware of these efforts and how they can make changes to improve soil and water health on their own farms. This includes working in partnerships to accomplish our objectives. In this issue of Illinois Field & Bean, you may read about non-governmental organizations (NGOs) that partner with us. We also discuss some of the practical agronomic tactics farmers can use like cover crops and timely fall strategies.

More ISA survey results are featured in this issue for your reference, along with farmer input on other soybean production issues. Look for ideas from the Natural Resources Conservation Service (NRCS) about further improving soil health on your farm, too.

Finally, our positive sustainability messages are finding their way into the Windy City. ISA opened an office in downtown Chicago this summer. The office is used to promote soy in the city, to educate consumers and to network with buyers and industry stakeholders. Details about the new office and its activities represent the cover story for this issue.

So, here’s the question: Are you doing all you can to take your farm to the next level? We have made progress in improving soil and water, but we can do more. I would enjoy getting your ideas and learning about what works on your farms. Send me a quick note to ilsoy@ilsoy.org.

DARYL CATES
ISA Chairman
For the last year or two, farmers across Illinois and across the globe have seen and heard more about soil health and sustainability than ever before. Soybean farmers are interested in learning the best ways to reap the benefits of sustainability while maintaining yields and profits.

Simply put, these concepts are naturally linked together. All three — sustainability, high yields and profitability — can find success on Illinois farms. There are, however, essential elements that can make or break success. In my opinion, as a conservationist and a stewardship enthusiast, they are: use careful soil management, take small steps and be patient.

Why are careful soil management and soil health improvement so essential?

Because soil is the base of every ag operation. There’s a reason why deserts are deserts and why Illinois is not one of them. We have some great soil resources here, but don’t ever forget that natural resources are finite. They can be used up and worn out.

Farmers are great at adding crop inputs to get the results they want. Sales people are great at selling farmers new and different inputs to try every year. But sometimes the inputs your soil needs most don’t come in a can or a bag.

What the Natural Resources Conservation Service (NRCS) and researchers are learning is that by naturally enhancing the complex biology and microscopic living systems beneath the soil surface, we can do amazing things to rebuild and restore healthy characteristics. We can improve infiltration rates, control pests and weeds and add organic matter. And do it all naturally.

Once you build back these complimentary and self-sustaining critter communities in the soils on your farm, their natural functions and life cycles help miraculously manage issues you pay for. They can do it on their own time and without fuel and multiple trips over the fields.

Underground soil transformations don’t happen overnight. That’s why you need to use the other two critical elements I mentioned — taking small steps and being patient. Learning how to successfully use conservation techniques, installing new field practices or structures on the land, or incorporating cover crops into your soybean operation is a complex undertaking. Talk to someone who knows the drill and always start small.

And yes, you must be patient. Be patient with yourself and your soil. Illinois’ great soils didn’t degrade overnight. It takes some time to restore what years of tillage destroyed.

There are four simple tips that farmers should consider to help them on their personal paths to sustainability and healthy soil. These principles will help you find success:

1. **Keep the soil covered as much as possible.**
2. **Disturb the soil as little as possible.**
3. **Keep plants growing throughout the year to feed your soil.**
4. **Diversify as much as possible using crop rotation and cover crops.**

Ivan Dozier has served as NRCS Illinois State conservationist since April 2012. He grew up in southern Illinois, attended the University of Illinois and resides in Champaign County. NRCS has worked voluntarily with private landowners and farmers since 1935. Technical staff are available in every Illinois county to help farmers make stewardship improvements on soybean farms. Visit a local team or learn more online at www.il.nrcs.usda.gov.
As Frank Sinatra sang, “Chicago is one town that won’t let you down.” Agribusiness and food industry leaders agree. “The City that Works” is considered one of the top global cities for agriculture. Archer Daniels Midland Company (ADM) opened their global headquarters in Chicago three years ago as the best location to provide efficient access to global markets while maintaining their close connections with U.S. farmers, customers and operations, according to company statements. ADM joins many agribusinesses in the Chicago region. Companies span the value chain from suppliers like CF Industries, NuFarm and TeeJet Technologies to further commodity processors like Tate & Lyle and Ingredion.

“Today Chicago is booming in all phases of food business, with a focus on accelerating local food company business growth at Chicago’s Tech Center,” says Marc Schulman, president, Eli’s Cheesecake Company. “And Chicago is also a premier location for corporate headquarters for food companies.”

Eli’s Cheesecake Company, a mid-size food processor, has been baking desserts in Chicago for more than 35 years. Its location puts it in proximity to suppliers, including dairy, fruit and ingredients like vanilla from Chicago-area company Nielsen-Massey, and honey produced by students at the Chicago High School for Agricultural Sciences (CHSAS). They join McDonalds, Kraft Heinz, Mondelēz and many other food companies located in Chicagoland that add value to agriculture products (see related story page 23).
“The Food and Agriculture Roadmap for Illinois (FARM Illinois) is working to establish Chicago and Illinois as the global hub of food and agriculture innovation,” says organization CEO Lee Strom. “Every day we make new connections within agriculture and the food chain, pairing the innovation and global access of the Chicago region with the fertile soils and production capacity of Illinois. Developing solutions to food supply and demand challenges will have long-term impacts on Illinois agriculture.”

The new downtown Chicago office for the Illinois Soybean Association (ISA) checkoff program strengthens Illinois soybean farmers’ voices and presence in the heart of the agriculture industry, where the soybean value chain and associated industries add economic value and jobs. According to a recent Informa Economics report funded by the ISA checkoff program, the soybean and closely related industries add $28.3 billion in output and 114,500 jobs to the Illinois economy.

“Our physical presence in Chicago gives us access to develop deep, long-term relationships with key customers, business leaders and influencers,” says Daryl Cates, farmer and ISA director from Columbia, Ill. “Proximity allows us to provide farmer perspectives about agricultural economics, sustainability, transportation, infrastructure, consumer choice and the high quality of soybeans produced in Illinois.”

GATEWAY TO GLOBAL MARKETS

“Chicago is the center for international agriculture trade,” says Will McNair, stakeholder relations manager for the U.S. Soybean Export Council (USSEC). “Overseas, buyers talk about Chicago Board of Trade or Chicago Mercantile Exchange prices. They set global prices, so internationally Chicago, Ill., is seen as the financial heart of the ag industry.”

Soybean buyers around the world watch the counter daily for Chicago prices, which leads to their interest in visiting the premier city in the U.S. Midwest, McNair explains. When international trade teams or business leaders come to the U.S., their flights often go through Illinois’ O’Hare International Airport.

“Buyers sometimes schedule very long layovers between connecting flights at O’Hare so they can do business in downtown Chicago on their way through,” McNair adds.

He believes the ISA Chicago office provides a convenient location for USSEC to bring international buyers to meet with farmers. Many of the trade teams USSEC works with come through Chicago, and partnering with ISA there provides a holistic view of the U.S. soy complex without driving for hours. Illinois farmers will become the face of soybean production for these global customers.

“For example, many buyers will fly through Chicago on their way to USSEC’s U.S. Soy Global Trade Exchange in Omaha in mid-August,” says McNair. “We are coordinating meetings with several groups in the new ISA office on their way to or from that event.”

These relationships support and grow the market for the roughly 60 percent of Illinois soybeans exported each year. In fact, soybeans became the No. 2 export from Illinois in 2016, according to the U.S. Census Bureau. ISA hosts more than 30 trade teams each year.

VITAL TRANSPORTATION HUB

Besides containing two international airports, Chicago is the only U.S. city traversed by all major North American railroads.

By the Numbers: Illinois Soybean Economics

The soybean value chain — raising and crushing soybeans and refining soybean oil — and the associated industries of animal feed manufacturing, raising livestock and producing biodiesel contribute to the Illinois economy:

- $28.3 billion in sales output
- 114,500 jobs
- $12.7 billion in gross state product, or value added through economic processes

VALUE MULTIPLIER OF 2.41:

Every $1 in gross state product generates another $2.41 in indirect economic impact

Every job supports another 2.85 jobs elsewhere in the economy

Rail capacity combined with inland waterway access that includes Lake Michigan and the Illinois River branch of the Mississippi River system makes Chicagoland — especially Joliet — a key player in container exports.

McNair says having this infrastructure in place provides a huge advantage.

“Many companies have moved soybean cleaning equipment to Chicagoland to support container shipments of high-value commodity-grade and specialty beans for markets like Taiwan, Vietnam, Indonesia and China,” he says.

Transportation access benefits food processors, as well.

“As a food manufacturer, the central location of Chicago gives us the ability to ship Eli’s Cheesecake across the country or to ports to access global markets,” says Schulman. “The railroad network makes it accessible to the rest of the country, and O’Hare gives direct access to anywhere in the world.”

**ACCESS TO INFLUENCERS**

“Many elements within the food and agriculture complex converge in Chicago, providing opportunities to break down barriers between rural and urban Illinois and shape future developments,” says Strom. “At FARM Illinois, we are building broad, non-traditional coalitions between civic, philanthropic and agricultural interests.”

Strom believes building relationships with decision makers deep in the food chain positions farmers to better address consumer questions and concerns that arise because of today’s unprecedented access to information. For example, he tells business leaders in the heart of Chicago about the Illinois Nutrient Loss Reduction Strategy, and how Illinois farmers are improving sustainability.

Bailey Arnold, manager of environmental health for the American Lung Association in Illinois, shares similar stories with transportation and civic leaders related to B20, a fuel blend with 20 percent biodiesel. The use of soybean oil and other renewable resources to produce biodiesel connects farmers directly to helping others improve sustainability.

“We support B20 because it improves air quality, producing fewer particulate matter and CO2 emissions than petroleum-based diesel,” says Arnold. “B20 also helps fleets like the Chicago Park District decrease their carbon footprint and save costs. The value of B20 and connections to Illinois farmers resonates with many influencers.”

“Such stories reinforce the positive image of agriculture and bridge knowledge gaps with common values,” Strom explains. “Building trust with other businesses and consumers makes it easier to provide the information they want about their food and agriculture. These relationships also help mitigate negative farm news as it comes out.”

He adds that industry leaders and influencers welcome ISA’s Chicago presence, which provides easier access to farmer perspectives and information.

Opportunities to connect with influencers build on the ISA checkoff program’s Soy in the City initiative, which helps grow trust with Chicago-area consumers who can understand how soybeans impact their daily lives. #SoyintheCity photos and facts on Instagram and experiences like the Soy in the City life-size board game in Millennium Park educate consumers about soybean uses.

Soy in the City also collaborates with Chicago-area legislators on community improvement projects in their districts. Efforts like providing supplies for CHSAS students to make and sell soy candles and providing ground pork to a new food pantry create more opportunities to educate consumers about soybeans. At the same time, these projects position ISA as a local, Chicago-based resource to legislators and decision makers on food and farming issues.

**CENTER OF AG INNOVATION**

Chicago continues to build a reputation as the “Silicon Valley of the Midwest” and is a hotbed for research and innovation. According to Strom, agriculture plays a prominent role in this scene. He shares surprising examples:

**Chicago Connections**

The new downtown Chicago ISA office, located in the heart of the Loop’s Financial District, provides access to connect with customers, the soybean supply chain and industry influencers. Plus, the strategic location will allow ISA to take advantage of future growth and development in the agribusiness and food industry in Chicago.
At the University of Chicago’s Institute for Molecular Engineering (IME), advanced research is being conducted on soil sensing technology with application to the agriculture industry.

The Paulson Institute, a Chicago-based think tank located in Hyde Park near the Museum of Science and Industry, has conducted extensive research on U.S.-China ag sectors, including a report on “Opportunities for U.S.-China Investments in Agriculture Innovation and New Technologies.”

United Airlines, which has a major hub and business operations in Chicago, has been investigating a transition to biofuels.

The potential for innovation and presence of the full food and agriculture value chain attracts venture capital firms that focus on food and agribusiness investments to Chicago. For example, Cultivian Sandbox, Seed 2 Growth Ventures and AGR Partners operate headquarters or additional offices in Chicago. In turn, venture capital investments feed the cycle of entrepreneurial innovation that is shaping the future of agriculture and supporting soybean yields and farmer profitability. Illinois soybean farmers benefit from these efforts, and ISA will be positioned to share innovations and opportunities between farmers and the industry value chain.

Innovation also signals opportunity for ongoing economic development in Illinois. The Informa report estimates that the soybean value chain and associated industries create $12.7 billion in gross state product, or value added through economic activity, with strong value multipliers for the Illinois economy. Chicago-based research and investments in future food and agricultural innovations will continue to grow this economic contribution and benefit farmers and the entire state, as ISA works toward the goal of utilizing 600 million bushels of Illinois soybeans by 2020.


“我们的物理存在在芝加哥为我们提供了访问和建立与关键客户、商业领袖和影响者长期关系的机会。”

DARYL CATES
farmer and ISA director from Columbia, Ill.
Sustainability Road Trip
Plan Your Summer Around New Ideas for Your Farm

Time to pack the pickup and hit the road. The end of summer offers a wealth of opportunities for gathering new ideas to take back to the farm. At each of these conservation-focused field days, you’ll learn management practices to improve soil health, water quality and overall profitability.

And while you’re at it, grab the whole family and teach them how fun farming can be. We’ve got your guide for the perfect summer road trip.

**Northwestern Illinois Agricultural Research & Demonstration Center Field Day**

*When is it?* July 26 at 8 a.m.
*Where is it?* Monmouth, Ill. – Northwestern Illinois Agricultural Research Center, 321 210th Ave.
*Who should attend?* Producers looking for management tips and Certified Crop Advisers (CCAs) looking for continuing education unit (CEU) credits
*What will I learn?* University of Illinois Extension specialists will present on crop, soil, water and pest management. Experts will present lessons gleaned from more than 35 years of research and tips on reducing nitrate loss while boosting yields and profits.
*How much does it cost?* It’s free.
*How do I register?* Contact Greg Steckel at gsteckel@illinois.edu or 309-734-7459.
**Bonus:** CEU credits are available in soil and water management, crop management and pest management. Complimentary refreshments will be served. Learn more at [http://web.extension.illinois.edu/nwiardc/downloads/70436.pdf](http://web.extension.illinois.edu/nwiardc/downloads/70436.pdf).

**Ewing Field Day**

*When is it?* July 27 at 9 a.m.
*Where is it?* Ewing Ill. – Ewing Demonstration Center, 16132 N. Ewing Rd.
*Who should attend?* Grain farmers and anyone interested in agronomy
*What will I learn?* Nutrient management, weed management and more
*How much does it cost?* It’s free.
*How do I register?* Call the Franklin County Extension Office at 618-439-3178.
**Bonus:** Free lunch provided

**Macoupin Creek Watershed Field Day**

*When is it?* August 17 from 9 a.m. until noon
*Where is it?* Gillespie, Ill. – Heyen Farm, 13734 Route 16
*Who should attend?* Any farmers looking to explore the latest conservation practices and nutrient loss reduction strategies
*What will I learn?* Attendees will view the best management practices for improved water and soil quality, especially related to phosphorous runoff. Speakers include Jim Isermann, Illinois field manager with the Soil Health Partnership, and Jim Hoorman, soil health specialist with the Ohio Natural Resources Conservation Service, among others. There also will be a demonstration of Environmental Tillage System’s Soil Warrior strip-tillage tool and cover crop trials.
*How much does it cost?* It’s free.
*How do I register?* Contact Rhonda Koehne at the Macoupin County Soil and Water Conservation District (SWCD) at 217-854-2626.
**Bonus:** Free lunch provided by local pork producers. CEU credits are available in soil management.
Farm Progress Show – Soybean and Corn Water Quality Exhibit

When is it? August 29 – 31
Where is it? Decatur, Ill.
Which display? Lot #605
Who should attend? Producers, manufacturers, ag families, the general ag community
What will I learn? The Illinois Soybean Association (ISA) and Illinois Corn Growers Association (ILCGA) join forces at this year’s Farm Progress Show with a best management practices exhibit. Visit the tent to take part in the “What’s Your Strategy” interactive display, where participants can cast votes for which sustainability efforts they do on their farm and learn about new practices to reduce nutrient loss, protect water quality and enhance soil health. ILCGA will also offer free, on-the-spot water tests, so be sure to bring in a sample.
In addition, double-crop plots, sponsored in part by the ISA checkoff program, will demonstrate how wheat and soybeans produce bigger yields, better soil health and greater profit per acre.
How much does it cost? $20 for adults and $10 for students gets you entry for the whole show. No pre-registration required.
Pro Tip: If you’re planning to stay overnight, book your hotel now. They fill up fast.
Need more info? Visit www.farmprogressshow.com
While you’re there: The locals say the must-visit place in Decatur is Krekel’s Custard & Hamburger. A staple of central Illinois, the burgers, tenderloins and custard will hit the spot after a long day at the Farm Progress Show.

Conservation in Action Tour

When is it? September 5 and 6
Where is it? West Lafayette, Ind.
Who should attend? Farmers, crop consultants, ag retailers, agribusiness leaders, university and Extension staff, district teams, state and federal agency representatives and leaders of conservation non-profits. Typically, 200 – 250 people attend from across the country.
What will I learn? The Conservation Technology Information Center’s (CTIC) annual tour will dig into new premium market opportunities that extend the benefits of conservation from the farm all the way through the supply chain. It will explore how watershed projects engage ag retailers and agribusiness, and how Indiana’s agencies and farm organizations work in partnership, building bridges to the future.
How much does it cost? $100, covering all meals and transportation
How do I register? Call 765-494-9555 or visit https://www.ctic.org/ciatours/Registration/
Need more info? Contact Chad Watts, watts@ctic.org, or visit www.ctic.org/ciatours for information on check-in, speakers, agenda and more.
While you’re there: Visit Triple XXX Family Restaurant, West Lafayette’s favorite burger joint, featured on Food Network’s Diners, Drive-Ins and Dives. They’re also famous for their root beer and hearty breakfast options.

4R Field Day

When is it? September 12 at 8:30 a.m.
Where is it? Tuscola, Ill. – Meet at Tuscola Outlet Mall (west end of gravel parking lot)
Who should attend? This field day was specifically created for ag retailers and CCAs, but also will be beneficial to any farmers who attend.
What will I learn? There will be several presentations of the Illinois Nutrient Research and Education Council (NREC) research trials on nutrient management and preventing phosphorus runoff, a demonstrations of nitrogen rate trials, strip till, cover crops and a bioreactor.
How much does it cost? The event is free and sponsored by Mosaic, The Fertilizer Institute (TFI) and Illinois Fertilizer & Chemical Association (IFCA).
Bonus: A free lunch is included for all participants.
How do I register? Call the IFCA Office at 309-827-2774.
The most important crop input might just be information.

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Get started now at ILSoyAdvisor.com.
WHAT’S ON THE MINDS OF ILLINOIS FARMERS?

The Illinois Soybean Association (ISA) funds a producer attitude survey each year to find out what farmers are thinking, what they know about ISA checkoff and membership programs and changes they are making. In 2017, 369 farmers participated in the online survey.

Here are some of the top findings:

**ABOUT CONSUMERS:**
- 92% agree that farm organizations should work to positively influence key urban stakeholders and opinion leaders.
- 66% strongly agree that Illinois farmers are acting in the best interest of consumers’ families, up from 49% in 2016.

**ON RISK MANAGEMENT:**
- When asked if soybean profit margins are tight, which (if any) of the following financial risk management strategies do you typically employ? The top three:
  - Search for lower-cost sources of fertilizer, chemicals
  - Use more variable rate technology (VRT) to reduce costs per acre
  - Modify crop rotation in some way

**DISCUSSING HIGH YIELD + QUALITY (HY+Q):**
- 45% said they would do an on-farm test to learn more about high yield and compositional value soybean options if they were available.
- 50% of respondents view programs to recognize farmers for their commitment to high yield and quality soybeans as somewhat or very favorably.

**AS TO BEST MANAGEMENT PRACTICES:**
- Which, if any, of the following practices have you voluntarily adopted in your farm operation to reduce nutrient losses? The top five:
  - soil testing
  - reduced tillage
  - split nutrient applications
  - precision ag
  - buffer strips
- When asked what factors led farmers to plant cover crops, 57% said to enhance soil tilth and add to organic matter.
- More than one-third have used cover crops, up from 26 percent in 2016.
- Reduced tillage jumped from 61 percent of participants to 81 percent in 2017.

**REGARDING TRANSPORTATION:**
- 78% said it is extremely important to rebuild Illinois infrastructure to ensure Illinois soybean delivery remains competitive in domestic and global markets.

**TALKING ABOUT ANIMAL AGRICULTURE:**
- 47% said animal agriculture is extremely important, up from 43 percent last year.

**WHEN IT COMES TO MEMBERSHIP, RESPONDENTS ARE MOST LIKELY TO GET INVOLVED BY:**
- Signing up for the Voice for Soy Action Network
- Answering 2-3 questions on a policy survey
- Adding their signature to an opinion}

Get started now at ILSoyAdvisor.com.
Implement a No-Cost Crop Residue Management Strategy This Harvest Season

> BY MIKAELA WIELAND

When summer fades to fall and harvest rolls around, it is time to start thinking about a crop-residue strategy. That’s because an easier planting season starts with the previous harvest.

“The first question a producer needs to ask is what the objective is,” explains Mike Staton, soybean educator for Michigan State University Extension. “Are you looking to prevent erosion, build soil health or just get rid of the residue in the short term?”

Answering that question will help inform management decisions.

“If short-term management is your goal, then tillage or removing residue by baling can be an option,” he says. “But in most cases, there are better options.”

Both Staton and Paul Jasa, University of Nebraska-Lincoln Extension engineer, are proponents of leaving residue undisturbed.

“I’m biased toward long-term no-till, and I make my recommendations based on that,” says Jasa, who has been running a no-till farm since 1978. His biggest takeaway? “Residue is your friend. Leave residue anchored and attached to the soil. Leave it upright and as tall as you can. Raise the corn head so that 12 to 24 inches of stalk remains standing and unprocessed.”

EVALUATE POSSIBLE MULTIPLE BENEFITS

Standing residue encourages biological activity all winter long, as microbes work to break down the residue. Jasa says having stalks anchored in the soil prevents erosion, while allowing air to move through the soil and warm it up in time for spring planting. It also holds the residue in place to allow for an even spread across the field.

Both residue management experts advise dealing with any additional stalks during spring planting. Modern planters are strong enough to deal with any standing residue. In fact, Jasa has
been planting through standing residue for more than 35 years without any tillage. He says he still gets excellent seed-to-soil contact in the spring.

As such, Jasa and Staton shy away from using special corn heads if fields will not be tilled. In addition to the extra cost, finely chopped residue often is blown away or creates a mat that prevents soil warming.

“Chopping residue also can leave the soil surface vulnerable to water erosion, especially during high intensity rainfall events, where residue will be washed away with the surface runoff,” says Mahdi Al-Kaisi, professor of soil management at Iowa State University.

WHAT PAYS, WHAT DOESN’T AND WHERE TO START

Farmers should weigh the potential economic impact. Staton believes applying nitrogen in the fall to promote microbial decomposition of the corn stalks is not as effective or recommended, as the decomposition is limited by low temperatures more than insufficient nitrogen.

Vertical tillage implements used to manage corn residue may or may not pay. On-farm research results in Michigan show an average yield increase of 1.5 bushels per acre, making vertical tillage a break-even proposition. In addition, vertical tillage has the potential to produce soil compaction at and below the operation depth.

Beginners to no-till and standing residue management may be frustrated at first, but Jasa reminds them that no-till is a management tool that is about building long-term soil health. He says that if there is any minor discouragement in years one and two, results will come by years five and six.

“The great thing about this management advice is that there’s no economic cost. In fact, this strategy will save money on fuel and labor,” he says.

Staton’s recommendation for beginners who want to leave their residue anchored and upright is to start on a small scale. “Try it out on your best and most forgiving fields, where the soil fertility, soil health and drainage are really good. Start there,” he says. “You don’t need to do anything more to your combine, you just leave the stalks higher. You may want to consider reconfiguring drills or air seeders during the winter so gauge wheels or openers won’t run over the old corn row.”

The other big thing beginners need is patience. “If you go from no residue to letting it stand, you have to get used to it,” says Jasa. “But if you talk to any no-tiller who has been at this for a while, they’ll say, ‘I want uniformly spread residue and I want more of it.’”
Partnerships, Local Involvement

The Indian Creek Watershed Project, started in 2010 by the Conservation Technology Information Center (CTIC), joins together farmers, industry, state government, non-government organizations and the local community to implement best management practices (BMPs) that reduce nitrogen runoff to the creek and to the Vermilion, Illinois and Mississippi rivers.

In the process, it became a model for other watershed efforts—due in part to the ISA checkoff program which helped quantify factors leading to success. “The Indian Creek Watershed Project really is a farmer- and citizen-led effort,” says Chad Watts, CTIC executive director. “We built a steering committee of producers and started by listening to their concerns.”

MORE BMPS MEANS CLEANER WATER

Watts notes after five years of work, more than 50 percent of watershed acres use BMPs, up from 7 percent at the beginning of the project. As a result, nitrate levels in the creek have decreased over time, contributing to less nitrate flow into the creek and downstream waterways.

Some of the strategies farmers implemented involved reducing tillage, incorporating cover crops, utilizing precision agriculture, dividing nutrient applications, restoring wetlands, using saturated buffers and establishing waterways. Annual field tours and other local meetings helped spread the word to other area farmers and encouraged them to look at changes they could make on their operations as well.

SEVERAL KEYS TO SUCCESS

In the last year of the project, Sarah Church, Purdue University postdoctoral researcher, stepped in to measure the success of the program and identify the ingredients for proven results. The research also was funded by the ISA checkoff program. Specific keys to success included:

Checkoff COLLABORATION

Efforts Expand Beyond Indian Creek

The same localized approach also is being used in the Upper Macoupin Creek Watershed in Southwestern Illinois, where ISA is providing support to promote increased BMP adoption to reduce phosphorus loss.

“We know there’s no one-size-fits-all solution,” says Roberta Simpson-Dolbeare, ISA District 12 director from Pike County. “It’s critical to give local farmers the tools and resources needed to choose which practices make sense for their operation.”

For more information and resources, visit http://www.ilsoy.org/Sustainability/Resources.
Keys to Watershed Success

1. **Local leaders** — A variety of farmers volunteered to be on the steering committee and talk with fellow producers about how to implement best management practices.

2. **Collaborative community** — Agricultural retailers and partnerships with environmental groups helped get a diverse group of stakeholders involved.

3. **Local goals** — Local farmers connected with the project to improve local water quality for their neighbors and community.

4. **Voluntary conservation** — Instead of forced regulations, activities related to the project were voluntary and customizable to each individual producer’s operation.

5. **Hands-on learning** — As part of the project, summer field days were held to show on-site and local strategies, while winter conferences were opportunities to discuss local results.

6. **Scale of project** — Having a small community allowed for many face-to-face conversations and local results sharing.

7. **Funding** — The program received Mississippi River Basin Healthy Watersheds Initiative cost-share funding from the Illinois Natural Resources Conservation Service, which provided cost-share funding for farmers to implement sustainable practices. Clean Water Act Section 319 funds from the Illinois Environmental Protection Agency (EPA) helped provide outreach, demonstrations and education for the project.

“If we foster key ingredients for success, it is a possible a project like this could happen anywhere,” says Church, who hopes the successes will be used as a catalyst for change in other watersheds. CTIC, American Farmland Trust and others are now expanding the work at Indian Creek to the larger Vermilion River Watershed. successes will be used as a catalyst for change in other watersheds. CTIC, American Farmland Trust and others are now expanding the work at Indian Creek to the larger Vermilion River Watershed.

Located in rural Livingston County about an hour northwest of Champaign, the Indian Creek Watershed is known as the “poster child” for watershed success, thanks in part to ISA checkoff program funding.
Withdrawal from the Trans Pacific Partnership (TPP), ongoing discussion of possible changes to the North American Free Trade Agreement (NAFTA) and bilateral trade talks with various countries are sending mixed signals to the soybean market about the potential impact on U.S. soy exports. And while the current export pace is strong, analysts warn that could change.

USDA’s Economic Research Service (ERS) notes the total value of U.S. ag exports was up slightly in 2016 compared with 2015. Soybeans were the top commodity export, and increased in value by 21 percent, or about $4 billion. ERS reports the sales increase was due partly to lower-than-expected production in other parts of the world, including a major competitor, Brazil.

“Brazil’s soybean production will have a big impact on U.S. exports and soybean prices during the next 10 years,” says Scott Gerlt, ag economist with the University of Missouri’s Food and Agricultural Production Research Institute (FAPRI). The group released in March its projections for the next decade. “Future U.S. soybean exports are heavily dependent not only on U.S. and Brazilian weather, but also continued growth in Chinese soybean demand. So far, Chinese demand largely has been met with a corresponding increase in Brazilian exports.”

Exports traditionally are an important demand outlet for soybeans, says Gary Schnitkey, University of Illinois ag economist and FarmDoc Daily contributor. And the importance of exports is likely to grow in the future. Technological changes will lead to higher yields and more soybeans, so a lack of export growth would pressure soybean prices.

“Being a reliable supplier is an important characteristic of ag exporters. If an exporter is not viewed as reliable, other countries may look elsewhere for supplies. Some reactions along these lines have taken place because of trade discussions from the U.S.,” says Schnitkey.

Some of those trade discussions have focused on Mexico and Canada; two long-time and large U.S. soy customers. In a FarmDoc Daily report, Schnitkey says soy exports into Canada and Mexico have substantially increased since NAFTA was enacted in 1994. Canada and Mexico’s cumulative imports of 162 million bushels represent eight percent of U.S. soybean exports, so a reduction in those sales would result in a large change in soybean prices.

The American Soybean Association (ASA) shared similar concerns following withdrawal from the TPP. “With net farm income down by more than 40 percent from levels just a few years ago, we need trade deals with Asia-Pacific countries to make up for the $4.4 billion in annual net farm income being lost by farmers,” says Ron Moore, ASA president from Roseville, Ill. “We expect a seat at the table to help ensure these agreements in whatever form they take are crafted to capture their full value for soybean farmers. Trade is too important for us to support anything less.”

If production and export trends continue during the decade, about half of the U.S. soybean crop will be exported,” says Gerlt. In creating its projections, FAPRI accounts for uncertainty related to yield, trade and policy. “FAPRI predicts soybean and soybean meal exports from the U.S. will average close to recent year levels. Soybean oil exports are expected to dip with an increase in domestic biodiesel production and with the downward trend in soybean oil per capita consumption slowing to a halt. Total consumption increases as the population grows,” he says.

Strong dollar appreciation since 2014 is another factor to consider. ERS states the dollar has weighed on U.S. ag exports. But, as soybean prices have fallen and stocks been replenished, soybean export volume has increased and curbed the perceived impact of a rising dollar. ■

**AG TRADE IN PERSPECTIVE**

USDA’s Economic Research Service says the U.S. has had a surplus in agricultural trade every year since 1959. Ag exports have accounted for 10-11 percent of total U.S. exports in recent years, while agricultural imports have accounted for about five percent of total imports.
Tunas are the athletes of the sea, and the most profitable form of aquaculture today.

That’s how Alejandro Buentello of Ichthus Unlimited describes tuna species, one of the most sought-after seafoods in the world. Buentello led the recent Illinois Soybean Association (ISA) checkoff program research project to incorporate soy into tuna feed, documented in the YouTube video, Feeding Bluefin.

He has seen how high global demand increases tuna value, and subsequently induces fishermen to over-fish wild stocks. But now the tuna industry is improving sustainability through ranching — catching and raising juvenile fish to market weight under a quota system — and developing hatchery technology to raise tuna from eggs.

“Closed-cycle aquaculture combined with sustainable diets offer the best opportunity to prevent wild tuna stocks depletion while meeting global demand,” he says. “But we have much to learn.”

As endurance athletes with a high activity level, tuna need a high-quality diet. Tuna ranching uses enormous quantities of wild-caught baitfish like sardines, squid or mackerel, and Buentello says prolonged feeding on these diets does not meet metabolic and nutrient demands of the high-performing fish. It also is one of the least sustainable, most costly elements of tuna production.

“Aquaculture has been working for years to replace fishmeal with plant feedstuffs to improve environmental and economic sustainability,” says Mark Albertson, ISA strategic market development director. “Soy protein is a complete protein that replaces fishmeal in diets for many aquatic species and has become the top ingredient in aquaculture feed. But limited alternative protein research exists for tuna because of their complexity.”

The ISA checkoff-funded research shows promise for addressing the tuna feed challenge. Three trials within the project tested various soy-based diets, and Buentello believes the results lay a platform to develop commercially manufactured tuna feed:

- **LARVAL ATLANTIC BLUEFIN PRODUCTION IN SPAIN.** In the first trials of closed-loop cultivation for this tuna species, Buentello’s soy-based formulation improved larvae survival rates by at least 30 percent compared to other diets.
- **JUVENILE YELLOWFIN TESTING IN PANAMA.** Young tuna tested various diet delivery formulations, including moist pellets, cooked sausages and extruded pellets, in a land-based trial. They accepted moist pellets best in the transition away from baitfish.
- **COMMERCIAL PACIFIC BLUEFIN FEEDING IN MEXICO:** Off the northwest coast, ranched tuna in ocean net pens successfully transitioned to moist pellets. The soy-based diet decreased the feed conversion ratio from 28:1 to 4:1, and decreased fishmeal and fish oil use in the feed by tenfold.

“Our successful results demonstrate the potential for formulated feed in tuna aquaculture,” Buentello says. “The soy-based diet is more nutritionally dense, improving feed conversion ratio. Because of that, it’s projected to be almost twice as economical as baitfish.”

Feeding Bluefin: The Search for Sustainable Tuna Feed summarizes the ISA checkoff program research on soy protein in tuna diets. Available on the Living Oceans Productions YouTube channel, it is ISA’s most-watched video. Check Stories from the Field section of www.ilsoy.org.

ISA director John Hagenbuch, Utica, Ill., hands a bucket of moist pellets to on-site researcher Juan Sierra, Ichthus Unlimited, during the ocean net pen tuna feeding trial near Ensenada.

Multiple Partners Contribute to Tuna Success

The ISA checkoff program project brought together many partners to help tuna aquaculture improve sustainability. Texas A&M and Kansas State universities supported research elements and evaluations. Archer Daniels Midland (ADM), Tyson, Omega Protein, Midwest Ag Enterprises, Krill Canada, APC and Originates contributed various materials and ingredients.
Check out our new shared lot space with the Illinois Corn Growers Association at the Farm Progress Show 2017!

See how the two commodity groups focus on areas like consumers, animal agriculture, exports and sustainability.

Then cool off in the air conditioned ISA tent and enjoy a free lunch if you are a member of the Illinois Soybean Growers (ISG).
Stewardship Website Offers Dicamba Direction

The Illinois Farm Bureau recently introduced a new project, “Stewardship: It’s in Your Hands.” The project includes a website, talking points and educational materials revolving around the topic of dicamba herbicide. Visit www.ilfb.org and click on the stewardship page to find the dicamba resource center, which includes information about the latest tech products, dicamba decisions and articles related to the topic. The Illinois Corn Growers Association and Illinois Soybean Association also are collaborators in the effort to communicate to farmers about the importance of stewardship to the industry and to farmer relationships.

CFI Celebrates 10 Years

The Center for Food Integrity (CFI) is celebrating a decade in business, working to build consumer trust in today’s food system. Today, CFI brings members and partners together to provide balanced information on the food system through speaking engagements, their yearly research report and also their website, www.bestfoodfacts.org. Members and project partners of The Center for Food Integrity — including ISA — represent every segment of the food chain: farmers, agribusinesses, universities, food processors, retailers and restaurants.

CTIC Slates Summer Tour for Central Indiana

Save the date for the 10th annual Conservation Technology Information Center (CTIC) Conservation in Action Tour, Sept. 5-6. The tour, held this year in central Indiana, will take participants through the Big Creek Watershed to discover conservation innovations, as well as offer networking opportunities with more than 200 farmers, crop consultants, ag retailers, agribusiness leaders, university extension staff and more. Farmers interested in attending should contact Chad Watts at watts@ctic.org or call 765-494-9555.

USFRA Partners with IPPA to Host Dietitians on a Farm

The U.S. Farmers and Ranchers Alliance (USFRA) partnered with the Illinois Pork Producers Association (IPPA) to host dietitians on an Illinois pork farm in June. The tour at Borgic Farms in Nokomis, Ill., allowed visitors to experience first-hand how food is raised and see on-farm sustainability and enhanced animal care practices. Dietitians included the spokesperson for the New York State Dietetic Association and Academy of Nutrition and Dietetics, former senior advisor of sciences and consumer insights for the International Food Information Council (IFIC) and a health and wellness director for Niemann Foods/County Market.

ISA Checkoff Partner USMEF Names New CEO

The U.S. Meat Export Federation (USMEF) recently announced that Phil Seng will step down as CEO at the end of this year and be replaced by Dan Halstrom, USMEF senior vice president for marketing. Halstrom will become president on Sept. 1, and assume the title of CEO on Dec. 1. Seng will remain as CEO emeritus through July 2018. Halstrom joined USMEF as senior vice president for marketing in 2010, overseeing promotional activities for U.S. red meat managed through the organization’s 18 international offices. The ISA checkoff program partners with USMEF to fund meat promotions worldwide, as livestock are the top soybean meal customer.

Calendar of Events

ISA Board Meeting
> July 25-28 · Champaign, Illinois

University of Illinois Agronomy Day
> August 17 · Champaign, Ill.

Farm Progress Show
> August 29-31 · Decatur, Ill.
Which ISG Membership Program is for You?

To bring farmers the most value possible for their operations, Illinois Soybean Growers (ISG) has two membership options: policy membership and informational membership. Membership in the American Soybean Association (ASA) is included with both options.

**ISG POLICY MEMBER:** Farmers may activate their power to join ISG in educating people about the facts and importance of American agriculture. Help ISG be the organization that government officials stop and listen to in Springfield and Washington, D.C. Be a driving force for change. The more members ISG adds, the louder our voice becomes. Policy membership keeps farmers informed and involved and provides added discounts and benefits.

A one-year membership is $150 and a three-year membership is $300. Benefits from ISG and ASA include the following:

- Automatic enrollment and Action Alert emails from ISG's *Voice for Soy Action Network*. Keep up-to-date on key issues, such as the Renewable Fuel Standard, Clean Water Act, transportation infrastructure, biodiesel and the blenders tax credit, inland waterways infrastructure development, truck weight limits, global soybean trade and market access.
- Invitations to legislative networking events.
- Opportunity to participate in the ISG Political Action Committee.
- Expanded policy representation/advocates in Springfield and Washington, D.C.
- Discounts on new Ford, Chrysler and GM vehicles, Cabela's gift cards and on any new DTN/The Progressive Farmer product or service agreement.
- Discounts on Commodity Classic registration and DTN/The Progressive Farmer Ag Summit registration (December in Chicago).
- Complimentary subscriptions to three top soybean magazines: *Illinois Field & Bean*, *American Soybean* and *The Progressive Farmer*.
- Email updates from the *Soybean Weekly Update* and ASA *eBean News*.

**ISG INFORMATIONAL MEMBER:** Farmers who want to stay informed about the ag industry, simply supply their name, address, email address and other basic information to receive the *Soybean Weekly Update* sent via email and *Illinois Field & Bean* magazine (eight times per year).

Contact Judy Smith at smithj@ilsoy.org, 309-808-3612 or 888-826-4011 to join or renew membership, or go to www.ilsoygrowers.org and apply online.

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**Corporate Partners**

**EXECUTIVE**
- ADM

**PRINCIPAL**
- DuPont Pioneer
- Monsanto/Asgrow

**CORE**
- Cargill
- Bunge

**ASSOCIATE**
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**AFFILIATE**
- BASF
- Bayer
- Beck's Hybrids
- Dow AgroSciences
- FMC
- Syngenta
- Terra Nova Research & Development, Inc.
- Valent
- Convey-all USA

**SUPPORT**
- US Borax
- Rumbold & Kuhn
- The Andersons
- URSA Farmers Co-op

To learn more information about ISA's Corporate Partner's Program visit [ilsoygrowers.com](http://ilsoygrowers.com)
Marc Schulman is president of The Eli’s Cheesecake Company, a 37-year-old Chicago business that has evolved from a local favorite to reaching cheesecake lovers across the United States. The company produces 300,000 portions of cheesecake each day — in addition to other desserts like cookies, tarts and cake. Eli’s Cheesecake World is a 62,000 square foot, state-of-the-art bakery, corporate office and dessert café on Chicago’s northwest side.

As a family-owned business, Eli’s Cheesecake supports the community, Illinois farmers and small businesses. Schulman also is committed to promoting educational opportunities and careers in the food industry. He serves as co-chair of the Business Advisory Board for Chicago High School for Agricultural Sciences and previously served as co-chair of the Education & Innovation Committee for the Food and Agriculture Roadmap for Illinois (FARM Illinois), an organization that brings together stakeholders in Illinois’ food and agriculture sector. Every day, soy-based ingredients are used to make Eli’s award-winning cheesecakes and bakery items.

**HOW HAS THE WAY YOU SOURCE INGREDIENTS EVOLVED OVER THE YEARS?**

The focus on the source of food ingredients has become increasingly important to our customers. They want to know where the ingredients are from and moreover, how the ingredients were grown, fed or processed. The focus on ingredients permeates throughout the entire food chain, from grower and manufacturer to distributor, retailer and, ultimately, the consumer. We continue to source ingredients from our valued suppliers who respond to our need for the finest ingredients, high-quality standards and kosher certification.

**HOW DO SOY-BASED INGREDIENTS PLAY A ROLE IN CREATING YOUR CHEESECAKES AND BAKERY ITEMS?**

We use soy lecithin as a processing aid for releasing our cheesecakes and desserts from their pans. It reduces stickiness, allowing the product to release from the pan without tearing. We tested several processing aids and found that soy lecithin works best for our desserts. If you happen to keep non-stick cooking spray in your own cupboard, you’ll note in the ingredient listing that soy lecithin plays a key role in its effectiveness.

Eli’s non-dairy cheesecakes are actually made with tofu from Phoenix Bean here in Chicago. The tofu is made from non-GMO soybeans grown by Illinois farmers. Like Eli’s, Phoenix Bean owner Jenny Yang is committed to quality and makes the tofu in small batches, handcrafted daily to ensure freshness.

We also use soybean — or vegetable — oil in creating our different cake varieties, like our Old-Fashioned Triple Chocolate and Limoncello cakes.

**IN WHAT OTHER WAYS DO YOU WORK WITH THE ILLINOIS AGRICULTURE COMMUNITY?**

Through mentorship and scholarship, we are an advocate for the Chicago High School for Agricultural Sciences, an urban school dedicated to preparing students for careers in agricultural pathways. In fact, the wildflower honey Eli’s uses in its Honey Almond Cheesecake is produced by the school’s students. They maintain the hives and collect and package the honey themselves. We’re proud not only to support the school by purchasing honey, but by helping integrate the students into the food business world.

“The focus on ingredients permeates throughout the entire food chain, from grower and manufacturer to distributor, retailer and, ultimately, the consumer.”

**Marc Schulman**

president of The Eli’s Cheesecake Company
We’ll be there—when and where you need us.

At ADM, we do more than buy soybeans. We make it priority to understand your business goals. By doing so, our merchandisers can provide you with the resources you need to succeed. And, we’ll do it whenever and wherever it’s convenient for you. Whether that means meeting over a cup of coffee at one of our conveniently located elevators, or sitting down at your kitchen table, you’ll get the individualized, personalized attention you deserve.

To learn more about the unique ways ADM can work for you, visit admadvantage.com, or contact your local elevator.