CONTAINERS
Open New Export Possibilities

SEE WHAT WORKS ON WATERWAYS

USE TECHNOLOGY TO BOOST SOIL HEALTH
Customers prefer U.S. soy because it’s sustainable. But demands for sustainability continue rising. Conducting split- or spring-applied fertilizer applications helps reduce runoff and makes nutrients available when crops need them. Adopting this practice is another step forward in improving your sustainable footprint. Show your commitment to sustainability with a free truck magnet available at unitedsoybean.org/sustainability
COVER STORY:
“Lock”ed Out: Waterway System Updates Crucial to Profitability
Many of the locks in Illinois have been in use close to 80 years; well beyond their expected life. That increases risk of failure. The Illinois Soybean Association (ISA) checkoff program is working with transportation industry partners to improve infrastructure and ultimately profits.

Empty Containers Full of Opportunity
Most containerized soybean shipments originate in Illinois. To help promote shipping containers as an efficient, environmentally friendly and profitable option, the ISA checkoff program led two tours during the last year involving the transportation network. Get a glimpse of soy’s journey.

Stop Treating Your Soil Like Dirt
Healthy soil is driven by physical, chemical and biological forces that interact to influence soil properties. Understanding and promoting that fact today goes beyond traditional testing. Find out about the latest tools farmers can use to do much more than tweak fertility.

ISA Brings Online, In-Season Advice to Farmers
Once again this year, Illinois soybean farmers will have access to timely production advice provided by the ISA checkoff program’s Certified Crop Adviser (CCA) Soy Envoys. Meet the new faces who will provide regional information throughout the growing season.

Tech Leader Offers Soil Health Insights
Soil health will always be a priority for soybean farmers to enhance productivity and profitability and lessen environmental impact. In a Q&A with Illinois Field & Bean, Environmental Tillage Systems CEO Kevin Born shares his insight about the future of soil health technology.

GETTING TO KNOW:
Kay Johnson Smith
As president and CEO for the Animal Ag Alliance, Kay Johnson Smith helps bridge the gap of understanding between farm and fork. Learn about her passion for the industry, her perspective on challenges animal ag producers face and how soybean farmers can help solve problems.
ISA is Moving Illinois Ahead

Did you know?

- More than 1,100 miles of navigable waterways border or pass through Illinois, which is equivalent to nearly half the length of the Mississippi River.
- Only two states have more interstate highway than Illinois – Texas and California.
- 7,000 miles of railway cross Illinois and are used by all seven Class I railroads.
- Most containerized soybeans originate in Illinois before shipping out as exports.

For these and other reasons, transportation is a priority issue for the Illinois Soybean Association (ISA) checkoff program and Illinois Soybean Growers (ISG). Illinois’ unique transportation infrastructure system delivers many advantages for moving soybeans around the world. But deteriorating infrastructure reduces our competitiveness in the global market and raises our costs.

This issue of Illinois Field & Bean focuses on some of the current opportunities and challenges we are working on, from inland waterway improvement, to our online transportation calculator for local decision-making, to our efforts to raise awareness of transportation use and needs.

The focus is timely. The Administration earlier this year proposed $200 billion in direct federal funding to leverage $1.5 trillion in infrastructure investments. Some could directly impact agriculture, including $50 billion in rural infrastructure funding that would be given to states via block grants and a request that permitting infrastructure projects be expedited.

Illinois waterways are the most economically efficient and environmentally sound way to transport soybeans and reduce congestion on highways and railways. ISG hopes to see $8 billion in direct federal funding for locks and dams construction on the Upper Mississippi River System, along with funding for dredging, maintenance and upgrades to ports and harbors.

A robust, reliable and resilient Illinois waterway provides a competitive advantage for regional and national economies. Other beneficiaries include commercial navigation, hydropower generation, recreation, flood damage avoidance, municipal water supply, irrigation, higher property values, sewage assimilation, mosquito control, lower fuel emissions of towboat and barge traffic compared with other modes.

As you head into the field this spring to do your best to produce soybeans profitably, know that ISA and ISG are continuing efforts behind the scene to make sure your pathways to harvest sales and delivery are as efficient as possible.

I encourage you to learn more about what we are doing by visiting the website, www.isoy.org/transportation. Operate safely this spring.

LYNN ROHRSCHEIB
ISA Chairwoman
Rethink Transportation Infrastructure Advocacy

> BY BENJAMIN BROCKSCHMIDT

It’s time to rethink our transportation infrastructure advocacy efforts. Why? We know that Illinois is the transportation hub of America where waterways, interstates, railroads, pipelines and global air travel meet. We know how important that is to the economic health of Illinois.

But we also know our infrastructure is at its limit. From surface transportation to public buildings, clean and waste water systems, locks and dams, storm water management and other assets, Illinois is falling behind in infrastructure investment.

Why? Because the revenues used to pay for the very things that keep Illinois running – roads, railways and waterways – do not meet our current and future needs. Every day, people use our transportation infrastructure, taking it for granted and assuming it works, even with the occasional pothole.

A recent report by the Illinois Chamber of Commerce Foundation identified the cost of working transportation infrastructure at $16.4 billion a year. That $16.4 billion is the result of congestion, safety, and wear and tear on vehicles. The working transportation that people are familiar with are faded paint stripes, potholes and roads that are past their prime.

We need to engage people who encounter these issues and enlist their help in advocating for better transportation. This includes business associates, friends and family. Legislators regularly hear from farmers and the usual transportation advocates, like you and me. They understand that if a rural bridge fails, miles and minutes add up to lost opportunity and higher costs at market.

Lost in this discussion are the stories of everyday people. The men and women who are afraid to take a new job because of an inconsistent commute. The rural family who follows the trucks in never-ending detours because of a posted bridge. The grandma or grandpa who is capable of living on their own but relies on rural transit to get into town for errands.

It’s easy to point at that $16.4 billion and assume that it’s all in northeast Illinois. However, the report looked at six regions, and five are not Chicago. In between each is roughly 98,000 miles of Illinois’ rural road network, as reported by the Illinois Department of Transportation (IDOT). The congestion in our metropolitan areas spills out to that rural network, adding to our woes.

Back to the $16.4 billion. The same study reported every $1.00 invested in transportation resulted in more than $5.00 in benefits. Improved safety. Less congestion. Less vehicle ownership costs.

Ignoring this problem only makes it worse. But we still have time. Investments in transportation provide the goods and access to domestic and international markets. If Illinois loses its transportation edge, our greatest competitive advantage will be squandered.

Benjamin J. Brockschmidt serves as executive director of the Infrastructure Council and vice president of policy for the Illinois Chamber of Commerce. The Infrastructure Council is a subgroup of the Illinois Chamber that focuses on increasing infrastructure investments in a strategic and thoughtful way to boost the overall business climate in Illinois. Brockschmidt was the primary author of the 2016 Safe Roads or Lockbox constitutional amendment, serves on the steering committee of the Illinois State Freight Advisory Committee and on numerous other transportation advisory organizations.
Expiration dates are included on products such as food and drink, batteries and medicine to indicate they may not be safe or reliable to consume after the indicated time. Often, risks can be associated with using an expired product.

The same could be said for waterway locks and dams. While they don’t come with an expiration date, they do come with an engineered lifespan of about 50 years. Many locks have been in use for close to 80 years, with minimal improvements, due to a lack of funding. Locks in use beyond their lifespan can increase the risks of a failure, raising safety and reliability concerns.

**FAILURE IS FAR-REACHING**

When a lock is down due to poor conditions, the impact can be far-reaching, extending well beyond just delays for commodity transportation on the waterway.

For example, the lock chambers on the Illinois River are approximately 110-feet wide by about 600-feet long, with a height overall that ranges widely to enable a minimum nine-foot draft for tow vessels and barges to navigate safely. If they fail, not only would barge traffic likely come to a halt, entire communities could be left cleaning up the possible aftermath of a flood.

According to the report “Modal Investment Comparison: The Impact of Upper Mississippi River Lock and Dam Shutdowns on State Highway Infrastructure,” across the region, a one-season shutdown of Lock and Dam 25 on the Mississippi River north of Alton would result in re-routing between 9.1 million and 12.4 million tons in agricultural goods, or 367,000 and 489,000 truckloads. It would cost as much as $283 million to move these loads by truck. Damage to roadways from these movements could cost states up to $28.8 million.

The report, released in October 2017, was based on research conducted by the Mid-America Freight Coalition, which focuses on planning, operation, preservation and improvement of transportation infrastructure in the Midwest. Whether it is added truck traffic resulting in roadway congestion, increased wear on highways or a larger demand for truck drivers, the report confirms entire regions could be affected by a lock failure.

**SYSTEM DEMAND IS SIGNIFICANT**

Illinois waterways are the most economical, efficient and environmentally friendly mode in the region for transporting cargo, according to industry statistics. The Illinois Department of Transportation (IDOT) estimates Illinois has 1,095 miles of navigable waterways that either border or pass through the state. The U.S. Army Corps of Engineers Rock Island District documents more than $23 billion in commodities shipped on Illinois’ inland waterways annually.

So why doesn’t inland marine freight get more attention and more money to fix the locks and dams in disrepair? It is a not question of “if” there will be an operations or maintenance issue on the Illinois Waterway, but “when.” According to Robert Ginsburg, Ph.D., director at the Center on Work and Community Development, there are several reasons:

- Fragmented, incompatible and incomplete data across public and private stakeholders
- No coordinated industry support
- No highly visible, consistent strategic freight vision
- Not being integrated into a complete intermodal transportation system

**ISA PARTNERS WITH INDUSTRY FOR SOLUTIONS**

Knowing that coordinated industry support is a missing link, the Illinois Soybean Association checkoff program (ISA) recently hosted an Illinois Waterway System Futures Forum in Springfield, Ill. Waterway stakeholders in attendance included the chemical industry, port districts, U.S. Army Corps of Engineers and port authorities.

The meeting focused on waterway transportation growth projections, maintaining a robust and reliable waterway system, characterizing financing options and agreeing on consensus points for future collaboration. Discussion also included evaluations of future waterway needs and advanced conversations to ultimately result in prioritizing waterway system enhancements.

“Waterway improvements benefit everyone,” says Stan Born, ISA director and soybean farmer from Lovington, Ill. “It is important we all unite and work together to find consensus that results in the right solutions to fix the problem.”

Born adds ISA realizes one of the best ways to ensure Illinois’ waterway infrastructure needs are included in important discussions is to present a consensus position on priorities that everyone can agree on across the various stakeholders.

“You start with the ‘why,’” says Born, “and then talk about the ‘what,’ to get to the ‘how.’ Tell the whole story.”

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“You start with the ‘why,’” says Born, “and then talk about the ‘what,’ to get to the ‘how.’ Tell the whole story.”
The following consensus points were developed by ISA and industry stakeholders, based on several government, university and private economic studies:

1. The Illinois Waterway is the most economically efficient way to transport bulk commodities.
2. The Illinois Waterway reduces congestion on the highway and railway.
3. The Illinois Waterway is the most environmentally sound way to transport bulk commodities.
4. The Illinois Waterway is at risk because of the significant backlog of deferred maintenance and lack of adequate federal funding.
5. The Illinois Waterway is the most environmentally efficient way to transport bulk commodities.
6. The Illinois Waterway system benefits a significant portion of the United States.
7. The Illinois Waterway benefits more than 1.7 million jobs in multiple economic sectors throughout Illinois.

Each time a 15-barge tow is lost, it results in increased train or truck freight.

Illinois leadership is important because Illinois was the top soybean-producing state in 2017. USDA’s National Agricultural Statistics Service (NASS) annual crop production report estimated Illinois farmers raised 611.9 million bushels of soybeans on more than 10 million acres last year. With approximately 60 percent of these soybeans sold through export channels annually, multiple modes of transportation must be used to get them to their final destinations.
The outlook for containerized soybean exports is bright. Containerized U.S. soybean exports through U.S. ports in 2017 totaled 214,440 TEUs (twenty-foot equivalent units used to measure cargo capacity), according to PIERS, the leading provider of import and export data at the detailed, bill-of-lading level. Illinois Soybean Association (ISA) checkoff program leadership believes that's good news for Illinois soybean farmers. About 47 percent of containerized U.S. soybeans originate in Illinois. Chicago is a top national container import destination. The location provides shippers with access to empty containers Illinois soybean farmers can use as a lower-cost transport option that also is competitive with bulk system and vessel freight costs. Members of the ISA leadership team got a firsthand look at shipping soybeans in containers during a tour of the Port of Long Beach in March, a follow-up to last summer’s Transportation Network Involvement tour in northern Illinois which followed soybean movement from Illinois to the Port of Los Angeles. Both tours showcased container shipping as an efficient, environmentally friendly and profitable option for shippers and customers.

Here’s a look at the journey soybeans in containers take from grain elevator to port.

## Step 1: Transloading

Soybeans are trucked directly from a farm or elevator to a transload facility, such as this facility owned by Consolidated Grain and Barge in Rochelle, Ill.

When containers arrive at the grain facility, they are evaluated by an inspection agency to make sure they are fit for holding food-quality grain. Sometimes containers may have an odor, a hole or something else that makes them unfit and they are rejected. Fit containers are swept to brush out residual dust or foreign matter remaining from previous loads.

Next, the bulkhead is prepared by installing several 2-by-10-inch boards and precut cardboard that is about two-thirds the height of the container. Soybeans are conveyed into the container and the bulkhead keeps them from spilling out when container doors are opened at destination.

Containers vary in size, with most 20 or 40 feet in length. Each 40-foot container holds about 966 bushels of soybeans. Containers are weighed before leaving the facility and sealed for shipment. If a container is too full, it is sent back to discharge or unload some of the material. Rail carriers and steamship lines will reject overweight containers.
Step Two: Intermodal Shipping to End Users

Inventory management is critical, as LPC can handle more than 16,000 containers. Every container and chassis has its own number. Three yard-checkers continuously drive the facility to confirm the location of every single chassis and container. Every fifth stall is marked with an exact number so LPC can keep track of the exact location of every single unit.

Containers are moved from the transload facility to the intermodal facility and loaded onto unit trains headed back to coastal ports. BNSF Railway’s Logistics Park Chicago (LPC) in Joliet, Ill., is one such facility. When an inbound container comes in, it is parked in a numbered stall. Once enough loads are staged for a particular destination, the containers are gathered and loaded onto a train, typically one to two days later.

Containers are transferred from truck onto trains by crane. The state-of-the-art, wide-span cranes run on electricity. Each crane has 30 cameras on it, allowing the operator, who sits approximately 65 feet off the ground, to see everything. For example, if the operator is going to grab a container, the camera allows him to zoom in to the exact location.

The majority of containers leaving LPC go to export. It takes about 10 hours from the time a train arrives until it is unloaded. Ten hours later, the train is reloaded to depart for the West Coast.
Step Three: Containers Arrive at the Coast

Ocean-going vessels deliver containers to international ports. A main benefit is that once the container is loaded, the soybeans are generally not handled again until they are delivered to customers around the world.

San Pedro Bay Port Complex is home to the Port of Long Beach and Port of Los Angeles, operating as two separate port authorities. Part of what makes the port complex so efficient is that they have on-dock and near-dock rail connected to an extensive, nationwide rail network.

One of the biggest changes the port has seen is ship size. The Korean Hyundai vessel shown here is a typical size at 7,000 TEUs. Soon, this will be one of the smaller ships that come into the port. Big ships have about 10 percent more fuel cost but carry almost three times as much.

Ships are brought into the port by tugboats and will stay two to four days to unload and load, depending on ship size. Ship-to-shore gantry cranes off-load and load the ship. The containers visible above deck are only about half of what the ship carries. The containers above deck are unloaded first. Giant hatches open to unload containers below.

One of the nation’s first automated terminals is located at the Port of Los Angeles. While not yet fully automated, the terminal has stackers and loaders that are currently computer controlled. Software keeps track of all the containers going in and going out. However, the main advantage is that this terminal runs nonstop. There are no lunch breaks or holidays.
To better understand the supply chain challenges that may impact soybean cash basis at Illinois origins, the ISA checkoff program is hosting a monthly transportation podcast series to focus on the topic. During the podcasts, Don Wenneker, a retired grain merchandising and transportation specialist, will evaluate market information with basis maps from Geo Grain. He will discuss seasonal challenges, roadways and waterways status, export markets and logistical concerns.

With more than 50 years of experience serving the agriculture industry, Wenneker brings a wealth of knowledge to ISA. Having worked for companies such as The Pillsbury Company and The Scoular Company, and later opening his own grain and transportation consulting firm, he understands the commodity value chain and effects that can be felt from industry challenges.

Wenneker is now retired from Tate & Lyle. His long-time expertise within grain merchandising and transportation on both domestic and international platforms will allow him to bring a seasoned, innovative perspective to his analysis.

Farmers are encouraged to see their checkoff dollars at work via these podcasts by tuning in each month at www.ilsoy.org/people/don-wenneker to learn more. Podcasts will take place May 28, June 15, July 20 and August 24.

Supply chain challenges can affect soybean basis across the state, including river terminals like this one in northern Illinois on the Mississippi River, where soybeans are loaded for export.
When municipalities are tasked with determining which road and bridge improvement projects should take precedence, it can be a challenge to prioritize. That was the case in Peoria County, where officials looked at 12 projects to consider repair or replacement. Of the 12, almost an even split existed between rural and urban projects. At first glance, urban projects appeared higher priority because of the larger amount of traffic traveling the roads. However, after a more in-depth evaluation using the Travel Demand Model by engineering firm Hanson Professional Services, officials moved the Trivoli Road Bridge located in rural, southwest Peoria County to the top of the project list.

With the model, officials were able to evaluate the Average Daily Traffic (ADT) and safety with fact-based data. The methodology is designed to allow rural and urban projects to be compared on a level playing field. Officials can consider the project’s overall importance to roadway users, rather than prioritizing projects on the traffic volume count alone.

The model showed that if the bridge was closed because of disrepair, the alternate route would result in a long and inefficient detour because there were no nearby parallel roads. This was especially critical because the Trivoli Road Bridge was part of a key emergency route.

The model analysis also found completion of the Trivoli Road Bridge would result in a benefit cost (BC) ratio of 21.56, the highest of all 12 projects. That means for every dollar spent over the 50- to 60-year lifetime of the bridge, constituent communities would benefit $21.56.

“Being able to objectively prioritize rural and urban projects with fact-based data is imperative,” says Peoria County Highway Department Engineer Amy McLaren, P.E. “This is instrumental in evaluating future investments, to see where constituents will get the most benefit.”

The ISA checkoff program recognized the need for municipalities to have the technology to objectively evaluate projects. “ISA is committed to investing funds in rural infrastructure evaluation models such as this to ultimately enable improved transportation safety and efficiency for soybean farmers,” says Paul Rasmussen, ISA director and soybean farmer from Genoa, Ill.

Through the experience in Peoria County, ISA worked with Hanson Professional Services to develop a Bridge & Road Improvement Calculator (BRIC), which uses information from travel demand models in a more efficient and cost-effective way to automatically calculate factors, including life-cycle costs, travel efficiency, safety and benefit-cost ratio. The BRIC lets county and city engineers, town officials and others quickly assess calculations, such as the cost of reconstructing versus resurfacing a road or analyzing safety benefits. For more information, contact bric@hanson-inc.com or visit http://www.ilsoy.org/ImprovementCalc/. ■
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.
Stop Treating Your Soil LIKE DIRT

> BY SHANNON LINDEROTH

The world is brimming with news and information about soil health. But what best defines soil health? And, how do farmers best measure and improve it over time?

First and foremost, it’s important to consider that healthy soil is comprised of physical, chemical and biological forces that interact to influence soil properties, says Will Brinton, Ph.D., environmental scientist and founder of Woods End Soil Laboratory.

“Soil isn’t something that’s just put there. Soil is constantly changing and responding to the environment,” he says. “Soil health isn’t a ‘thing’ like nitrogen or phosphorus is a ‘thing.’ Soil health is the interaction and relationship of many ‘things’ that form the whole of your soils.”

Brinton says embracing soil health should go beyond a traditional soil-management perspective that focuses on individual fertility components. Instead, farmers should adopt a more inclusive approach that addresses all of the properties that make up the entire system. Attention to soil health also should center on each field’s diverse ecosystem, giving careful consideration to making and executing plans for the farm all year long — and for the decades to come.

CONSIDER TEST TYPES

Traditional soil tests and newer soil-health tests do not measure the same parameters. Where soil fertility tests are important tools for providing timely results for key indicators like phosphorus and potassium levels and micronutrients, soil-health tests tell more about the soil’s story.

“For example, carbon biology has a delayed effect compared to nutrients,” says Brinton. “As we diversify farming with the addition of tools such as cover crops, we’re seeing a lot of biomass nutrients that are not going to be revealed in a soil fertility test.”

“Traditional soil tests look at the chemical properties of soil, and that’s helpful,” notes Jim Isermann, Soil Health Partnership field manager. “However, soils include physical and biological factors, too. Right now, the main indicator on a standard soil test for biologic and physical characteristics is organic matter. Many farmers want to go further in-depth and are turning to soil-health tests. But these are very new, and we need to understand how to use the results.”

Isermann says the trend may continue as interest in soil health remains on an upward trajectory.

Soil Health Partnership Develops Database

The Soil Health Partnership (SHP) is evaluating soil-health test results for 30 sites in Illinois that are part of 111 sites across the Midwest to establish soil-health baselines, better understand the various components and how they work collectively.

“We’re building a large data set. The goal is to better establish how to rank certain parameters so farmers can positively affect the health of their soils, while better understanding which factors they can and cannot change,” says SHP Field Manager Jim Isermann. “Data can help us understand how to influence specific soil-health factors. Illinois farmers will be able to access data individualized for the state. That information can help benchmark a farm’s results for factors such as aggregate stability, set long-term goals and aid management decisions.”
“Farmers are very interested in a deeper soil-health test,” adds Doug Miller, vice president of Midwest Bio-Tech Inc., in Erie, Ill. Midwest Bio-Tech will soon come online as the first lab in Illinois solely dedicated to testing soil health. “Farmers want to know where they are at.”

Variations in soil types will affect soil-health test objectives. “Soils are different from north to south, so soil-health testing procedures and soil-health needs will be different,” says Miller. “Some farmers, based on location, will focus more on building organic matter, for example.”

Soil-health testing will allow farmers to consider more comprehensive and specific assays that delve into parameters that include soil respiration (CO2 exchange), stored organic nitrogen and aggregate stability to provide a deeper level of understanding of soil performance.

“We now have some very good tests to help us measure these factors,” says Isermann. “The next step is to determine how we use that data to make on-farm decisions.”

NO SINGLE RECIPE

Brinton, Isermann and Miller agree a sound approach is to take the long view on soil heath, as research and results over time tell the story of success.

For instance, with the complexity of the tests and soil-health factors, farmers and agronomists will not likely be able to order a single test that comes with a single set of recommendations they can use to make cropping and management decisions.

“Farmers are used to getting recipes (soil fertility results) to fix things,” says Brinton. “But because soil health is not about individual things, this prescriptive strategy no longer fits. Instead, soil-health monitoring will require different types of analyses and a holistic attitude.”

“Tackle These Soil Health Test Tips

In addition to standard soil fertility tests to determine soil nutrient levels and pH, consider adding these four tests to effectively benchmark and monitor soil health. Follow the specific sampling procedures outlined by each test and take samples from different depths. Depending on root depth, some samples may need to be taken at 20 to 24 inches.

1. Test for soil organic matter or soil carbon; two different ways of measuring the same thing. If available, get results for both.
2. Obtain soil microbial activity.
3. Test soil respiration (CO2).
4. Determine total organic nitrogen in the soil (must request specifically).

To take your monitoring even further and build a total picture of your soils, add in the Natural Resources Conservation Service soil survey data available at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.
ISA Brings Online, In-Season Advice to Farmers

Illinois soybean farmers will have access to in-season production information in 2018 provided by the Illinois Soybean Association (ISA) checkoff program’s Certified Crop Adviser (CCA) Soy Envoys. ISA partners with the Illinois CCA program to provide local recommendations each season. CCA Soy Envoys will contribute regular content through ILSoyAdvisor.com targeted at helping soybean farmers increase yields and profits while minimizing environmental impact.

TODD STEINACHER
AgriGold, Carrollton

For the past two years Steinacher has worked as a regional agronomist for AgriGold, covering west central Illinois. Prior to AgriGold, he was with the GROWMARK/FS system for nearly 10 years working as a crop specialist, seed specialist and a field sales agronomist. Steinacher has an associate’s degree from Lincoln Land Community College, a bachelor’s degree in agronomy and business from Western Illinois University and a master’s degree from the University of Illinois.

ROD MORAN
Dairyland Seed Company, Inc., Forsyth

Providing support and education to sales staff across all crops and geographies for Dairyland Seed, Moran also manages Dairyland’s soybean portfolio. He joined Dairyland in 2004 as district sales manager in central and southern Illinois and then in 2010 transitioned into his role as product agronomy specialist. Previously, he worked with GROWMARK for 16 years. Professional accreditations include his CCA in 2001 and CPAg in 2012. He holds undergraduate degrees in earth science and agronomy and a master’s in crop sciences from the University of Illinois.

KRIS EHLER
Ehler Brothers Co., Champaign

Ehler is a sales agronomist for Ehler Brothers Co. in Thomasboro. He is a graduate of the University of Illinois and has been a CCA for 15 years. He was the first ISA Master Soybean Adviser winner in 2017. Ehler was part of the advisory and agronomy team to help growers Bob and Jason Lakey set the Illinois state soybean record of 108 bushels per acre in 2015. His social media page, The Pursuit of 100+ Bushel Soybeans, helps growers implement early planting and management practices to increase yields.
KEVIN NELSON
Northern Partners, Ottawa

Kevin Nelson is a CCA with the 4R nutrient management specialty (NMS) working for Northern Partners Co-op (NPC) based in Mendota. He has worked for Northern Partners and one of its legacy companies since 1997 and received his CCA certification in 1994. Nelson has a strong background in soil fertility and precision agriculture and works with the agronomy sales team at NPC to help them include these tools as part of their offerings to growers in north central Illinois.

AARON PRINS
The Equity, Mason

Prins is a sales agronomist with The Equity based in Greenville. He grew up on a corn and soybean farm in northwest Illinois and has been a CCA since graduating from college in 2015.

KRIS REYNOLDS
American Farmland Trust Midwest, Nokomis

Reynolds joined American Farmland Trust in January 2017 as the natural resource conservationist. He is responsible for working with the many partners in the Upper Macoupin Creek and Vermillion Headwaters watersheds. Reynolds coordinates activities with farmers and landowners that improve water quality and soil health, enhance nutrient efficiency, employ conservation cropping systems and meet the goals of Illinois’ Nutrient Loss Reduction Strategy. In addition to being a CCA, he holds specialty certifications from the American Society of Agronomy as a 4R NMS specialist and sustainability specialist. He has a bachelor’s degree in agronomy and ag business from Illinois State University.

KELLI BASSETT
Bassett Farm and Seed, Greenville

Bassett and her family raise corn, soybeans, wheat and cattle in south central Illinois. She also is a Pioneer seed sales representative. She has worked as an agronomist in Illinois with DuPont Pioneer and with the University of Illinois Extension as an educator. Bassett serves on the Illinois CCA board and holds bachelor’s and master’s degrees from the University of Illinois in crop sciences. She enjoys working with growers to determine ways to improve crop productivity.
Soil health has, and will continue to be, a priority for soybean farmers who want to maximize productivity and profitability and lessen environmental impact. Environmental Tillage Systems CEO Kevin Born shares his insights about the future of soil health and technology.

In terms of tillage and soil health, what is the next big thing from technology that farmers can expect to revolutionize how they farm?

When I think of soil health and soybean production, I believe farmers need to consider ways to provide good aeration in the soil. This begins with soil drainage to manage waterlogged soils. In areas where poorly drained soils aren’t an issue, improving soil structure should be given more attention as it has a substantial impact on the soybean crop’s ability to fix nitrogen and it reduces root disease incidence.

What should top priorities be for Illinois soybean farmers in terms of farming for the future from your perspective?

The first priority should be seedbed preparation. As more emphasis is placed on reduced seeding rates on soybean acres, it is more critical to ensure every plant emerges. Strip-tilling for soybeans is an ideal way to optimize seedbed conditions.

What challenges do you anticipate soybean farmers will face that technology can help address?

Nutrient placement. As we gain a greater understanding of what is required to continue to increase soybean yields, technology advancements will help up place nutrients where and when they are needed for the highest potential yields.

What are some of the ways Illinois soybean farmers can partner with companies like yours to shape the development of profitable tools for the future?

There will be great opportunities ahead to learn more about how managing crop residues, placing nutrients and improving soil structure through the adoption of strip-tillage practices can reduce production cost and increase yields while protecting our greatest natural resource – the soil. We will offer future events.

What other outside-the-box thoughts would you offer to farmers to ponder?

- Can precise seed metering add similar productivity gains in soybeans that have been realized in corn production?
- In high residue environments, will strip-till allow for earlier planting dates? Earlier planting allows for more nodes on the plant and more potential sites for podset.
- What role can late season fertility play in pod retention and greater grainfill?

Kevin Born has an extensive background as a consultant for a diverse set of agriculture and food industry clients. He has a bachelor’s degree in agronomy from South Dakota State University and a dual master’s degree from Iowa State University in agricultural education, and crop production and physiology. He was raised on a cash grain farm in southern Minnesota.

Environmental Tillage Systems is a manufacturer of zone tillage equipment located in Faribault, Minn. Its flagship product is the SoilWarrior, a complete strip-till system that enhances soil productivity and farm profitability. Founded on a farm in southeast Minnesota, the company now serves clients across North America and internationally. To learn more, visit soilwarrior.com.
WHO INSPIRES YOU?

The people involved in our industry. I’ve met small farmers and people who are CEOs of multi-national companies. What they have in common is a strong set of values. People in agriculture are committed to doing the right thing; they’re hardworking, genuine and have a sense of a bigger purpose. Growing up in a rural community, I know that our members are the backbone of rural America. That creates a passion in me to work on behalf of our members to tell their story and to provide them with information that helps them be better communicators about what they do. That really drives me – knowing that what we are doing helps make a difference. We help real people who work hard to provide the food our country needs.

HOW CAN FARMERS BETTER CONNECT WITH CONSUMERS?

Having a presence online and showcasing the farm and the family that’s involved is important to consumers. Our research tells us consumers want to hear a farmer’s perspective when it comes to the food supply. Farmers and ranchers play an important role in getting that message out and building a relationship. The typical consumer has little to no connection to agriculture. It’s important that we talk about advances in our industry and connect that to the consumer and how they benefit.

WHAT SPARKED YOUR PASSION FOR AGRICULTURE?

I grew up in the country, but my parents grew up on farms. When I was hired by Virginia Farm Bureau, I found my passion for ag. I realized about three months in that I was working on behalf of people just like my family. I fell in love with the people and the passion they have for what they do. That was more than 25 years ago. Now I’ve spent almost 24 years at the Animal Ag Alliance and there’s no place I’d rather be.

WHAT IS ONE OF THE MOST SIGNIFICANT CHALLENGES FACING THE ANIMAL AG INDUSTRY?

Animal Ag Alliance is actively monitoring issues within activist organizations, predominately animal rights groups that have an agenda to eliminate animal agriculture altogether. They don’t believe that people have the right or the need to eat protein from animals, whether that’s meat, milk or eggs, and they have very diligent and well-funded campaigns that target the public and create distrust about animal agriculture and farmers and ranchers.

WHAT EXCITES YOU MOST ABOUT THE ANIMAL AG INDUSTRY?

We’re always very proud to talk about the advancements happening in the industry. We have an annual report called “Advances in Animal Agriculture” (http://animalagalliance.org/file/) and the whole focus is on the continuous improvements in animal care, food safety, sustainability and the judicious use of antibiotics. Our industry is constantly looking for ways to improve, despite vocal activists trying to drown out our voice, and animal agriculture does have a very positive story to tell.

Kay Johnson Smith heads the industry-united, nonprofit organization that helps bridge the communications gap between farm and fork. Since 1987, the Animal Ag Alliance has helped consumers better understand all facets of animal agriculture, including educating them about the role of animal ag in providing a safe, affordable and abundant food supply for a growing world.

The ISA checkoff program partners with the Animal Ag Alliance on various efforts.
Honey Bee Health Coalition Introduces Best Management Practices

The Honey Bee Health Coalition has published best management practices for soybean farmers in an effort to educate growers about the impact of their management decisions on declining honey bee populations. The University of Illinois’ Adam Dolezal, assistant professor of entomology, conducted the research for the report. He makes recommendations such as spraying fields at night when bees are least active and avoiding spraying during bloom time as ways that soybean farmers can lessen their impact. Honey bees are an important part of the agriculture ecosystem, and studies show their pollination results in increased soybean yields. The Honey Bee Health Coalition, which includes the United Soybean Board, and several other ag stakeholders, reports 75 percent of the nation’s bees summer in the upper Midwest, making Illinois’ soybean acres a common site for pollination. To access the report, visit honeybeehealthcoalition.org/soybmtps/.

Cover Crops Field Guide App Now Available

The Midwest Cover Crops Council has made its popular pocket field guide available as a mobile app for iPhone and Android. Producers can access all the same cover crops information available in the guide. The application version includes additional photos and links to other useful information. The app will download for free, but to access all information, there is a $2.99 yearly subscription fee. The printed field guide is still available online from the Purdue Extension Education Store. Look for the app on the App Store or Google Play.

USFRA Launches New engAGe App

Farmers may be agriculture’s best advocates. According the U.S. Farmers and Ranchers Alliance (USFRA), only about 5,000 agriculturists are on social media posting on average three times per month about food and agriculture issues. Enter the engAGe app – designed to help amplify agriculture’s voice on social media. By downloading this free app, users can scroll through a newsfeed of relevant news articles, images, infographics and videos about agriculture, and then share that content on multiple social platforms at the same time. USFRA encourages farmers to join the food conversation and increase their network’s awareness of agriculture. To learn more about engAGe, visit www.fooddialogues.com/engage/.

NRCS Updates CSP Program

USDA’s Natural Resources Conservation Service (NRCS) has updated its Conservation Stewardship Program (CSP) to better help producers evaluate conservation options. Through CSP, private landowners build their business while implementing conservation practices that help ensure the sustainability of their entire operation.

New methods and software now available help evaluate applications, so producers can see up front why they are or are not meeting stewardship thresholds. Farmers can then pick practices and enhancements that work for their conservation objectives. These tools also enable producers to see potential payment scenarios for conservation early in the application process. Those with existing CRP contracts can access the benefits of the recent program changes through an option to renew their contracts for an additional five years, provided they adopt additional activities to achieve higher levels of conservation on their acres. Producers interested in CSP are recommended to contact their local USDA service center or nrcs.usda.gov/GetStarted.

Calendar of Events

ISA Sustainability Tour
> June 18-21 • New Orleans

Risk Management Workshop
> June 19 • Bloomington, Ill.

ISA Committee Meetings
> June 26-27 • Bloomington, Ill.

Illinois Soybeans Have Come a Long Way

A 1968 news clipping states, “Miss Mary Ellen Laatz, Grand Ridge, was named Miss Illinois Princess Soya during finals of the statewide contest held in Urbana June 18.” Laatz went on to win the first national title at the American Soybean Association (ASA) annual meeting. During her reign as “Princess Soya,” Laatz represented soybean producers across the U.S., traveled abroad and participated in numerous conventions and state agriculture meetings.
ASK AN AGRONOMIST

JESSICA HERDES
DEKALB Asgrow Technical Agronomist
Noble, Illinois

WHAT ARE YOUR RECOMMENDATIONS FOR EARLY SEASON SOYBEAN WEED CONTROL?

We saw excellent benefits of the Roundup Ready® Xtend Crop System in southern Illinois last season, resulting in clean fields and high yields. Regardless of what system you are using, the overall goal is to start clean and stay clean. The best way to manage weeds is to keep them from coming out of the ground by using a residual program that utilizes different modes of action. A two-pass system in soybeans can be intimidating due to cost. However, with the aggressive weeds and the challenging weather we see in southern Illinois, a lower cost, one-pass system can quickly become a rescue three-pass system that isn’t killing weeds, but instead is promoting resistance and building up the weed seed bed that can rob yield and profit potential.

REGARDLESS OF WHAT SYSTEM YOU ARE USING, THE OVERALL GOAL IS TO START CLEAN AND STAY CLEAN.

WHAT BENEFITS CAN FARMERS EXPECT FROM XTENDIMAX® HERBICIDE WITH VAPORGRIP® TECHNOLOGY?

Many farmers saw the benefits of, and plan to use XtendiMax® herbicide with VaporGrip® Technology at a post or in-crop application timing. However, some farmers may not realize there are benefits of use before or at planting at a 22-44 oz./acre use rate, where we previously had to manage a required plant back restriction of 14-28 days and a minimum rainfall requirement when planting non-dicamba tolerant soybeans after spraying. XtendiMax herbicide provides the opportunity to kill small seeded broadleaf weeds early and also offers the benefit of good length of soil activity in dry conditions and keeping weeds from emerging. Pairing with a longer-term residual product at the early application timing provides multiple modes of action and varying rates of activation to spread risk across different moisture scenarios.

WHAT ARE THE BENEFITS OF THE NEW RRXTEND SPRAY APP?

The RRxtend Spray App is a grower- and applicator-focused tool that provides field-level, location-specific weather forecasts, digital record-keeping capabilities and educational resources relating to the Roundup Ready Xtend Crop System, all in one place. The weather forecast component includes inversion risk probability, wind speed and direction at approximately three feet above the ground, temperature and relative humidity. It’s a pretty well-rounded tool farmers can use on a phone or iPad® in the cab. However, it does not replace the farmer’s responsibility to confirm compliant application conditions at the time of spraying.

Farmers can download the app for free on the Apple App Store® and on Google Play®.

FIND MORE AGRONOMIC UPDATES AND TIPS AT ASGROW.COM/AGRONOMY

Performance may vary from location to location and from year to year as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of those conditions on the grower’s fields.

Always read and follow label, where applicable, grain marketing and all other stewardship practices and pesticide label directions. Asgrow® and the A Design®, Asgrow®, DEKALB® and Design®, DEKALB®, Roundup Ready®, VaporGrip® and XtendMax® are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners. ©2014 Monsanto Company All Rights Reserved.
GLOBAL DEMAND, LOCAL IMPACT
International Soybean Trade

Locally, Illinois is consistently one of the top-producing soybean states, growing 611.9 million bushels in 2017. Globally, soybean consumption is projected to increase more than four percent as populations grow, incomes rise and living standards improve. Illinois has the capability and capacity to help feed and fuel a growing world, in turn creating economic activity within the state.

MEXICO
A significant market for pork and poultry, which are raised on soybean meal. Trade agreements, like NAFTA, help pave the way to more global access for Illinois commodities and other goods.

CHINA
Top location for whole Illinois soybeans. Approximately 60% of Illinois soybeans are exported annually, many of them going to China.

TAIWAN
Top destination for whole Illinois soybeans shipped via containers in 2016. Containerized shipping offers a vehicle for smaller shipments or for customers wanting a specific soybean attribute.

THE PHILIPPINES
No. 1 in 2016 for exported Illinois soybean meal. Transporting soybeans and soy-based products to countries like the Philippines supports 80,000 Illinois jobs.

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1 Based on U.S. Census Bureau data.
2 Estimate based on PRX, U.S. Census Bureau and other industry data.
Our nation’s economy stands at a crucial moment. As countries trade goods and services at rates never seen before, the global economy continues to become more intertwined than ever. It is easy to look at this change and turn inward, but that will only set us up for more struggles down the line.

Here in America, we make the best goods in the world. But in too many countries, tariffs and regulations put our goods at a disadvantage. That is why it is so crucial we continue to support fair and free trade, working to better our trade agreements like NAFTA (North American Free Trade Agreement) to help American businesses and families.

The 18th District of Illinois is the eighth largest agricultural congressional district in the country, containing some of the most fertile farmland in the world. As great as the products we grow may be, our farmers and the agriculture industry must have markets to sell their goods. That’s where free trade agreements like NAFTA come in, removing barriers that allow our corn and soybeans to be sold internationally at competitive prices.

Since the implementation of NAFTA, American ag exports have more than quadrupled from $8.9 to $38 billion annually. This is significant and the reason why the agriculture sector now supports more than 21 million jobs here at home.

Specifically, in terms of yields, last year, the United States harvested 4.3 billion bushels of soybeans—up 10 percent from the previous year. In my home state of Illinois, farmers contributed more than any other state at 593 million bushels. Furthermore, the U.S. exported 55.1 million metric tons of soybeans in 2016, about a five percent increase from the prior year. Data show the United States has had continued successes year-over-year which, coupled with fair trade, greatly benefits farming families across the United States.

While NAFTA and free trade have allowed for this kind of prosperity and growth, we must also be mindful of the problems that can arise. For example, recent Canadian policies creating quotas and tariffs for importing American poultry and dairy threatened those industries here.

Now is the time to take a fresh look at our trade agreements – not with an eye to withdrawing from the global economy, but to making our trade fairer and better. The bottom line is that we need customers from around the world to buy and consume our products.

President Trump and his trade team are in the process of renegotiating the NAFTA deal. As a new member of the House Ways and Means Committee, I continue to be a proud advocate for our agribusiness industries and have emphasized to the President the impact fair trade has on agriculture across central and west central Illinois. Free and fair trade is a win-win, and it is vital that we make these agreements fairer to stay at the forefront of the world economy.
CUSTOMERS PREFER U.S. SOY BECAUSE IT’S SUSTAINABLE.

But as demands for sustainability continue rising, meeting those demands remains a journey of continuous improvement. Which sustainable practices do you do now? Which ones could you adopt to improve your sustainable footprint? Show your commitment to sustainability with a free truck magnet available at unitedsoybean.org/sustainability

SUSTAINABILITY NEVER GOES OUT OF SEASON

COVER CROPS

WATER MANAGEMENT

REDUCED TILLAGE

NUTRIENT MANAGEMENT

DECISION FARMING

PEST MANAGEMENT