Soybean Seed Selection Needs Attention

• More than Yield Affects Your Price
• Review Practical Profit-Builders for 2014
Innovation helps farmers produce more food using fewer natural resources. That’s why we invest millions every year in research and development — so farmers have the best tools in their hands. That’s improving agriculture. That’s improving lives. And that’s what Monsanto is all about.
Cover Story

Balance Seed Selection Timing with Data Availability
The enticement of advance order seed discounts and the pressure from limited availability of top varieties push the soybean variety selection process earlier every year. Yet, many agronomy professionals point out quick decisions may mean missed opportunity. Learn how you might make the best seed decisions for your 2014 production plan.

Animal Agriculture

Ready-for-You Resources
Backing livestock industry expansion is a top Illinois soybean checkoff priority -- protecting local basis and encouraging local growth. Read more about the variety of “ready-for-you” resources that ISA has for soybean farmers to use to reinforce the importance of livestock production to Illinois communities.

Transportation

Report Fall Transportation Roadblocks with New App
If you find yourself “stuck” hauling grain during harvest this fall, there’s a new smartphone app that can help you out. Get the details about how the app makes it easy for farmers to be part of the solution and report detours, delays and weight restrictions that cut into profitability.

Yield, Quality & Composition

Soybean College Yields Practical Profit-Builders
Soybean farmers left Soybean College this summer armed with practical tips to help build profits from soybean production. Evaluate the top five reported here from both university researchers and private company professionals, and incorporate the ideas for 2014.

Yield, Quality & Composition

Management Matters Mythbusters
What’s fact and what’s fiction when it comes to making money from a load of soybeans? Illinois Field & Bean has compiled a list of questions and answers from the experts in this new column.

Freedom to Operate

Biotech Food Labeling Talk Hits Home
While Illinois soybean farmers may be accustomed to ongoing debate in Europe surrounding the use of biotech soybeans as human food ingredients, new discussions in Springfield, Ill., about biotech food labeling hit closer to home. Illinois Soybean Growers (ISG) is monitoring labeling bills that have been introduced in both the Illinois House and Senate.
Gearing Up for a Good Year

The Illinois Soybean Association (ISA) is gearing up for a good year. Just as you hope to have a safe and plentiful harvest this fall, ISA plans to have another successful season of investing checkoff dollars in key programs and supporting passage of critical state and federal legislation.

With the beginning of our new fiscal year this month, the ISA board of directors has made some changes to increase our efficiencies and target our goal of using 600 million bushels of soybeans in Illinois by 2020. We have tightened our focus to five target areas in order of importance: animal agriculture; transportation; yield, quality and composition; freedom to operate; and organizational excellence. And we have a new board in place to lead the effort.

I was elected to serve as chairman for the new year. I want to do what is best for ISA and Illinois soybean farmers. I previously served as ISA vice chairman and chair for the membership task force. I want to build a strong board, show you that the checkoff is a good return on your investment and benefits you, and increase our membership.

Joining me on the ISA Executive Committee for 2013-14 are Mike Marron, Fithian, as vice chairman; Rob Shaffer, El Paso, as treasurer; Dan Farney, Morton, as secretary; David Droste, Nashville, as assistant secretary-treasurer; Don Guinnip, Marshall, as production committee chair; and Mark Sprague, Hull, as marketing committee chair.

We also seated new directors. Two new at-large directors, Lynn Rohrscheib, Fairmount, and Jeff Lynn, Oakford, were elected to the board. Also added were new district directors John Longley, Aledo, District 3; Sharon Covert, Tiskilwa, District 4; Dale Asher, Sutter, District 8; and Daryl Cates, Columbia, District 15. Re-elected directors include Shaffer, District 6; and me, District 18. Doug Schroeder, Mahomet, will fill the remainder of the current District 11 director term.

Mike Cunningham, Bismarck, and Ron Moore, Roseville, were elected to represent Illinois soybean growers on the American Soybean Association (ASA) board, along with Dean Campbell, Coulterville.

I look forward to the coming months, and welcome your feedback. Have a safe harvest.

Bill Raben
ISA Chairman

Checkoff Fact: Animal Agriculture is ISA’s Main Focus

Every $1 million of livestock product output in Illinois results in $2.4-$2.9 million in total economic output for Illinois. Pork production accounts for 82 percent of soybean meal consumption in Illinois. Dairy and beef cattle eat eight percent and poultry eats five percent.
n old plant breeder’s joke says five things should be considered when evaluating new genetics: yield, yield, yield, yield and yield. This is an old joke that may be ready for the history books. Modern plant breeders, researchers and end-users today also look at the composition and benefits of the glorious and bountiful soybean.

Before we talk about what yield, yield, yield means today, let’s talk about weeds, weeds, weeds. For those of you who have not experienced resistance issues be very aware. Until you see weeds shrug off a full rate of your favorite liquid hoe you can tell yourself, “I’m a better farmer than that,” or “there’s no resistance in my area.” But it can happen, and it can get out of hand.

Unfortunately for the 2014 crop you really don’t have any new herbicide tolerance traits. Roundup, Liberty and STS varieties still are the only tricks in the bag until Environmental Impact Statements have been completed for Enlist and RoundupReady 2 Xtend. Other herbicide traits are on the horizon, and some may be deregulated prior to 2,4-D or dicamba traits.

Some farmers use conventional herbicide programs to address resistant weeds. However, lack of conventional varieties may mean that you still will end up paying the tech fee on a herbicide-tolerant variety, in addition to using different chemistries.

Doug Winters’ excellent editorial in the 2012 seed selection issue of Illinois Field & Bean rightly touted protein and oil values as tools for selecting varieties. Selecting for these attributes will keep the U.S. competitive and known for soybeans that yield in more ways than one.

But looking at protein, oil and traditional yield numbers can be a bit like investing in the stock market. Don’t bet the whole farm on one encouraging number. Learn what kind of protein and oil levels you can achieve on your farms.

The environment, soil, nutrient and management practices are the biggest variables in the protein and oil equation. Variable rate applicators and planters that change varieties on the fly are more than just ideas. The justification for a change of varieties on the fly takes lots and lots of data.

Until we have that kind of data, though, my yield joke may have some life left in it. My personal top five variety selection factors are: straight-up, bin-busting yield, good protein and oil yield, yield bumps from pertinent disease resistance genes, yield protection from varieties that are adapted to area and soil type, and ensuring future yield by rotating herbicide traits and weed management tools. In addition to choosing the right genetics, a good start to the season comes from buying quality seed and protecting your investment with seed treatments. ♦

Doug Miller is CEO of the Illinois Crop Improvement Association. The association plays an important role in the seed and grain industries by providing independent, third-party laboratory services, and encourages soybean farmers to submit samples for protein and oil analysis for evaluating soybean variety performance. Visit www.ilcrop.com for more information.
Balance Seed Selection Timing with Data Availability

By Joanie Stiers

In today’s farming environment, soybean seed selection for the next growing season generally starts in the combine — sometimes while harvesting corn or early soybeans.

Enticement of advance order seed discounts and the pressure from limited availability of top varieties push the selection process earlier every year. Yet, many agronomy professionals point out quick decisions may mean missed opportunity.

Soybean checkoff-funded research shows that seed selection remains one of the biggest determinants of success in the field. Soybean variety selection and related seed treatment rank among the “Six Secrets of Soybean Success,” as defined by University of Illinois researchers.

“I think from the soybean side, farmers haven’t put much attention to seed selection,” says Fred Below, professor of plant physiology at the University of Illinois and “secrets” researcher. “They take what’s available, unlike corn where they agonize long and hard over the decision. There’s some hanging fruit to be gathered by paying more attention to seed selection.”

Nathan Mueller, Extension agronomist at South Dakota State University, summarizes the situation this way: save money now or gain profit later. Discounts for early seed orders reduce expenses. Access to the most current variety data supports decisions. The early order may save several dollars per bag, but an order supported with trial data may boost yields several bushels.

Seth Naeve, Extension soybean agronomist at the University of Minnesota, encourages a balance. “Farmers should resist booking all seed before viewing public variety results,” he says.

Variety Traits

Several characteristics merge to form the best seed choice for farmers, says Jarrod Hudson, team sales agronomist for Beck’s Hybrids.

“It comes down to picking the right maturity, right herbicide resistance, disease package, row-width adaptability and also placing it on the right soil type,” he says.

Industry experts share these tips for farmers as they peruse variety information this fall:

• **Choose high-yielding varieties.** Yield tops the list for most farmers, and rightfully so. Illinois research between the highest and lowest yielding varieties ranged from a 20-bushel spread in 2010 to 11.5 bushels in 2012, Below reports.
• **Select full-season, if possible.** “We encourage growers to plant the fullest maturity cultivar for their region, particularly if they are able to plant early,” Below says. Others agree. The fuller the maturity, the higher the yields. In 2012 trials at the University of Illinois, later maturity soybeans improved yield by an average of 3.2 bushels per acre.
• **Use seed treatments.** Research ranks seed treatment among the “Six Secrets of Soybean Success.” Below recommends a complete seed treatment, particularly if farmers plant early. Treatments of fungicide, insecticide and nematocide exhibited yield advantages that averaged 2.6 bushels per acre in 2012.
• **Select a disease package that fits your farm.** “If you have a known issue of a disease, pick a variety with strong resistance,” Hudson says. Often, varieties that historically yield well also have good disease resistance packages for soybean cyst nema-
tode (SCN), sudden death syndrome (SDS), white mold and phytophthora, Naeve says.

- **Consider standability.** Soybean plants on highly productive soils or irrigated fields can result in increased risk of lodging, Mueller says.
- **Evaluate different herbicide resistance traits to combat problem weeds.** Hudson encourages farmers to change up their herbicide traits as weed resistance issues emerge. “With a lot of weed resistance issues showing up, choosing herbicide-resistant soybeans and looking at different systems other than Roundup Ready is going to be key,” he says. More resistance choices may be available in a few years, but in the meantime, Hudson suggests Liberty Link soybeans or conventional seed.
- **Be aware of oil and protein content.** While farmers generally focus on yield, foreign and domestic end users buy soybeans according to composition, including oil, protein and amino acids, says ISA Research Director Linda Kull. Startling downward trends in soybean protein content and quality will reduce competitiveness of U.S. soybeans in the marketplace. Annual field trials that report protein and oil content, in addition to yield performance, give farmers information on compositional quality for preferred varieties and increases potential to identify varieties that boost soybean value to end users.

**Tap into Several Seed Selection Resources**

Trusted seed salesmen and public variety trials offer great tools to farmers during the seed selection process. Experts recommend tapping into both.

Rowen Ziegler, soybean farmer from LaHarpe, Ill., and former ISA director, says public variety trials provide a thorough

“We encourage growers to plant the fullest maturity cultivar for their region, particularly if they are able to plant early,” says Fred Below, Illinois plant physiology professor.
Prep now for next season’s success

Successful fall soybean harvests filled with strong yields are the result of many variable conditions and decisions coming together to produce optimal results. Some decisions are made during the growing season, such as which treatment approach to use for weeds or insects, while others, including seed selection, are made months before a crop is ever put into the ground.

With so many seed options available to farmers, making the right choice takes a little homework. John Long, Mycogen Seeds customer agronomist, says many considerations for soybean seed choice revolve around how well seed varieties will perform based on local conditions.

“A lot depends upon the agronomic characteristics available based on local disease pressures and their adaptability to the soils,” Long says. “I encourage farmers to look at the products that are out there, review literature to see which varieties have better ratings for their particular pressures to address their problems head on.”

He also encourages farmers to consider local data to help determine which seed may be most successful next year.

“It’s about picking out a soybean variety that’s a good match, including considering local plot information and local success stories within a given geography,” Long adds.

He advises farmers to make their seed selection decisions early to be sure there is adequate supply of their preferred varieties.

“The supply of some varieties might be compromised due to late planting. Once farmers make a decision, they really need to talk to their local seed supplier early to do what they can to ensure they’ll get the varieties they need,” Long says.

In addition to the varieties of seed, Long says he sees a change in how seed is being delivered. He sees increasing use of “super boxes,” which are hard-sided containers holding 50 units of seed. Instead of dealing with 50 individual bags or even poly totes, the super boxes offer increased convenience, safety and efficiency.

Many seed tenders, Long says, are designed to work with the larger bulk containers.

“As growers plant more acres, they’ve found that bulk seed is often a better option. Equipment is getting larger. Some planters can hold 250 to 300 units of seed, so bulk handling is becoming a necessity.”

Brought to you by:

SOY TALK

ISA Adjusts Checkoff Production Research Strategy

ISA is implementing a new strategic approach for production research beginning in 2013-14, which includes a 25-25-50 allocation guideline for investing checkoff dollars. Rowen Ziegler, the 2012-13 ISA Production Committee chair, says the approach is an effective way to respond to Illinois soybean industry needs and the soybean marketing environment. The approach ensures that funds for production research capitalize on opportunities and address constraints in the marketplace.

Basic science (25 percent) includes research meant to increase the scientific knowledge base and typically is long-term research. Projects may deal with genetics, genomics and breeding.

Applied science (25 percent) includes research that addresses practical problems for farmers and gives farmers more immediate solutions to combat production issues. For example, researchers determine recommendations for best management practices and weeds and disease management.

Technology transfer (50 percent) includes all communications that deliver information to target audiences, such as farmers and agribusiness professionals. Online resources, communications efforts and major events like ISA’s Soybean College and Soybean Summit fall in this area.
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New livestock and poultry barns generate new business -- not only for the producers who build them, but also for the farmers who provide the feed, and the companies that process the animals. Area barns create jobs and strengthen the local tax base.

“Livestock and crop farmers depend on each other for success,” says Mark Sprague, soybean farmer from Hull, Ill., and ISA Marketing Committee chairman. “Illinois livestock farmers feed our soybeans and corn to their animals. They are our No. 1 customers. Supporting their growth ensures a local market for our soybeans.

“When producers want to add livestock barns, neighboring soybean and corn farmers should foster growth,” Sprague continues. “ISA shares facts about animal agriculture so we can talk to our neighbors and communities about the value of the industry.”

Backing livestock industry expansion is a top checkoff priority -- protecting local basis and encouraging local growth. ISA has a variety of “ready-for-you” resources so soybean farmers can reinforce the importance of livestock production to Illinois communities:

- The Animal Agriculture Toolkit equips farmers to give a 15- or 30-minute presentation about the importance of supporting animal agriculture in Illinois. The presentation includes a short video, fact sheets and more that can be customized.

David Droste, soybean farmer from Nashville, Ill., and ISA director, used the kit to share with the South Central Illinois Growth Alliance the value of livestock production and highlights of his trip to Peru and Panama.

“China’s offer to buy Smithfield shows we can supply quality meat to a large customer,” he says. “That creates jobs and income and generates tax revenue. The impact starts with feedstock producers all the way through distribution.”

- When counties review specific permit requests for new barns or expansions, ISA works with livestock industry partners to lend expertise and local support from directors and other ISA members. To reach a community, ISA offers customized local news releases, ads and sponsorships that explain how animal agriculture benefits the local economy. A recent western Illinois fair sponsorship gave Sprague the opportunity to share facts during a radio interview.

- ISA created the Animal Ag Economic Impact Map (link right), a county map that shows where the nearly $3.5 billion in direct livestock sales come from in Illinois.

- The “Guide to Beginning a Thriving Livestock Operation” debuted at the Farm Progress Show.

- ISA’s “Crop and Livestock Farmer Partnership” brochure describes ways to work together and create partnerships to benefit everyone’s bottom line.

“Illinois livestock farmers feed our soybeans and corn to their animals. They are our No. 1 customers. Supporting their growth ensures a local market for our soybeans,” says Mark Sprague, soybean farmer from Hull, Ill., and ISA Marketing Committee chairman.

Want More Information?

Contact Leah Beyer, ISA animal agriculture lead, beyerl@ilsoy.org or 317-512-4025. Online resources are found at www.ilsoy.org.

Checkoff Fact: ISA Looks to Future Expansion

According to Leah Beyer, ISA animal agriculture lead, multiple livestock businesses are expressing interest in placing barns in Illinois. Beyer focuses on strengthening relationships between ISA and these businesses to learn how soybean farmers can help bring more top customers into the state. “As we learn more about the potential for livestock growth in Illinois, we can pinpoint where our local efforts boost industry efforts,” she says. “We will identify potential new livestock farmers, help community leaders understand the value of animal agriculture and study how crop farmers can benefit from the nutrients animals provide.”
A Grower’s Guide to Protecting against SCN

Soybean cyst nematode (SCN) is responsible for the loss of approximately 120 million bushels of soybeans per year in the U.S., according to researchers at the University of Minnesota Extension, and costs U.S. growers $1.5 billion annually. Fields infected with SCN may exhibit minimal above-ground symptoms because the microscopic soilborne parasite diminishes soybean yields by feeding on roots. The level of symptomology is correlated to the level of SCN pressure, so growers should consider how environmental conditions interact with SCN to make visible symptoms more evident.

While most nematodes can only be observed with magnification, the adult females and cysts of SCN are about 1/32 of an inch long and visible to the unaided eye. SCN moves through the soil only a few inches per year on its own, but it also spreads by coming into contact with anything carrying cyst-infested soil, including animals, wind, farm workers and machinery. The first U.S. documented case of SCN dates back to 1954 in New Hanover County, N.C. SCN has since spread across the country and now covers much of the Midwest.

Worm-shaped juveniles hatch from the egg within the soil when temperatures and moisture levels are adequate in the spring. Attracted to growing roots, young juvenile nematodes will enter into soybean roots and begin feeding. This feeding site, known as the syncytium, opens an entryway for other pathogens and increases the soybean plant’s susceptibility to many soilborne pathogens, such as Pythium, Rhizoctonia, Phytophthora and Fusarium—particularly one Fusarium species in the Midwest that causes sudden death syndrome.

In order to minimize the damage caused by SCN, growers must first know the population levels of SCN in a field so they can more accurately diagnose what treatment options may be required. Growers should collect soil samples and submit them to the nearest University of Illinois Extension soil testing lab. Soil samples along fence lines, previously flooded areas, fields in lower elevation and field entryways are areas where SCN populations are most likely to occur.

If growers find that fields have high populations of SCN, rotation to non-host crops, such as corn, is a key component to a nematode management plan. Rotational crops diminish the SCN population in a field. Without a source of food, any SCN eggs that hatch will die. Although SCN-resistant varieties work well to combat the pest, the overuse of a single source of resistance—SCN-resistant varieties currently on the market primarily use only one of the seven genetic sources available due to yield compatibility issues—has often led to reduced efficacy.

For the 2014 planting season, growers will have another option to combat SCN—Clariva™ Complete Beans nematicide/insecticide/fungicide. It’s an on-seed application of separately registered products that adds a revolutionary nematicide to the broad-spectrum seed treatment of CruiserMaxx® Beans with Vibrance® insecticide/fungicide.

Pasteuria nishizawae, the nematicide active ingredient in Clariva Complete Beans, is a proven natural enemy to SCN. P. nishizawae ironically acts as a parasite to the SCN—just as its host acts as a parasite to the soybean plant. Once treated seed is planted, P. nishizawae spores are released into the soil and attach to the juvenile nematodes as they pass through the soil. P. nishizawae then infects the nematode’s body, reducing its feeding and reproduction over time—ultimately killing the nematode. Clariva Complete Beans offers season-long activity against SCN and provides protection against early-season insects and diseases, which improves root health and overall performance.

For more information about SCN or Clariva Complete Beans, visit http://Soybeans.FarmAssist.com, the one-stop resource for everything soybeans. And don’t forget to register for the Soybean Insider to be delivered directly to your email at www.FarmAssist.com/SoyInsider. Follow Syngenta on Twitter (@SyngentaUS) or Facebook (Facebook.com/FarmAssist).

This educational white paper has been brought to you by Syngenta.
Report Fall Transportation Roadblocks with New App

If you Google “deficient bridge,” you find more than 4.6 million results, most saying the United States’ economic future is crumbling away with its infrastructure.

Such is the case in Illinois. Soybean checkoff dollars are invested in several projects that have confirmed that the state’s transportation infrastructure is in peril. Freight and commodity transportation efficiency relates directly to profitability throughout the value chain. The more deficient the infrastructure becomes, the less profitable the industry is.

Are You Stuck?

One of the ways Illinois soybean farmers can participate in a solution is through the new smartphone app called “I’m Stuck,” from the organization Building America’s Future. The app provides users a simple way to report transportation issues directly to their local elected officials. While it is geared toward urban commuters stuck in traffic, the tool also is applicable to farmers and others in the ag transportation industry.

“This app makes it very easy for farmers to report how the detour, delay or weight restriction they experience regularly cuts into their profitability and the area’s economy,” says Paul Rasmussen, soybean farmer from Genoa, Ill., and ISA transportation vice chair. “If we all take a moment every once in a while to let our officials know the direct and local impact we feel, it will be noticed.”

Farmers can download the app from www.bafuture.org/imstuck. The app generates an email that can be customized with a sentence relating the lost time and extra mileage to an operation’s profitability that the transportation issue has caused.

Find a Way

The Illinois Soybean Association (ISA) is working on other answers as well. Directors in 2012 initiated a campaign (#ILSoyFindAWay) to focus on possible solutions.

“During the past year, we have focused our efforts on bringing together the many players to develop realistic and workable solutions. Sometimes just bridging the gaps like this is the catalyst needed for action to start,” says Rasmussen.

He says ISA’s efforts are successful. The campaign, including press events, meetings with industry leaders and legislators and a summit, laid a foundation for progress.

“The proof is in the pudding,” he says. “We knew our work was producing results earlier this year when state legislators sponsored a public-private transportation financing bill just days after we discussed the need and opportunity with them.”

Rasmussen, who was reelected transportation vice chair in August, is enthusiastic about what ISA will be able to accomplish in the coming year.

“ISA is dedicated to making sure our product can be delivered efficiently to meet the demands of our customers worldwide. A great example is shipping soybeans via container, which allows us to reach markets that cannot handle bulk shipments,” he says.

Checkoff Fact: ISA Leads Container Research Options

ISA will launch a container-on-barge program soon. The goal, shipping containers of soybeans directly downriver to the Gulf of Mexico, has the potential to shift the soybean transportation paradigm, says Paul Rasmussen. Such a service is seen as a time-sensitive, cost-effective alternative to trucking or railing containers to the East and West coasts.
First Purchasers Support Policy Work through SoyConnect

Illinois Soybean Growers (ISG) is always looking for ways to support important policy work, and your soybean first purchaser may be able to help. Soybean checkoff money cannot be used as a resource. But the SoyConnect program helps fill the gap by creating a network of industry partners that help fund soybean farmer advocacy in Washington, D.C., and Springfield, Ill.

Here's how it works. All first purchasers retain two percent of checkoff funds if payment is remitted in time. Illinois is the only state that allows this deduction. ISG asks first purchasers to give that two percent back to the association and become a SoyConnect partner.

SoyConnect allows first purchasers to provide input into soybean issues, as well as participate at special invitation events such as strategic planning sessions, research forums/tours and marketing and education tours. All SoyConnect partners sign a one-year letter of agreement to participate, and receive automatic ISG membership.

When you haul soybeans this fall, ask your first purchaser if they will join these SoyConnect partners in supporting soybean policy advocacy during the coming year: ADM, Akron Services, Big River Resources D/B/A Monmouth Grain & Dryer, Bunge NA, Cargill, Consolidated Grain, East Lincoln Farmers Grain, Monsanto Company, Pioneer Hi-Bred, Rumbold & Kuhn, Stanford Grain, Syngenta, The Andersons and Ursa Farmers Co-op. ♦

ISA Corporate Partners

- **Executive**
  - Monsanto
  - Novozymes BioAg

- **Principal**
  - ADM
  - Dow AgroSciences

- **Core**
  - DuPont Pioneer
  - BASF
  - Cargill
  - Beck’s Hybrids

- **Associate**
  - Bunge North America
  - FS & GROW-MARK

- **Affiliate**
  - Syngenta
  - Stoller USA
  - Consolidated Grain & Barge

- **Support**
  - Rumbold & Kuhn, Inc.
  - Bayer CropScience
  - The Andersons
  - Becker Underwood
  - Ursa Farmers Co-op
  - Crop Production Services
  - Bio Soil Enhancers
  - AgVenture Inc.
  - Valent U.S.A.
  - Akron Services

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This Little Piggy eats soy

So do chickens, cows and fish. In fact, animal ag is your No. 1 customer — eating 98 percent of your soybean meal. That’s bringing home the bacon.
Soybean farmers left Soybean College in July armed with practical tips to help build profits from soybean production. The annual event featured several speakers, including Farm Journal field agronomist Ken Ferrie, Bryan Young, Ph.D., weed scientist from Southern Illinois University’s College of Agricultural Sciences; Brad Beutke and Isaac Ferrie of Crop-Tech Consulting, Inc.; and Fred Below, Ph.D., and Jason Haegele, Ph.D., from the University of Illinois.

“Soybean College provided dozens of ideas to take home and put to work,” says Jered Hooker, soybean farmer from Clinton, Ill., and ISA director. “For example, attendees learned more about the importance of soybean growth stages and timing pesticide applications.”

Other profit-enhancing takeaways from the event include:

1. Get the pH right before beginning strip or reduced tillage.

Test your soil every two years. Test at the same time to account for seasonal variances. Consider field history and yearly rainfall when abnormalities appear.

2. Soybean fertility has the biggest yield impact behind weather.

Research, including “Six Secrets of Soybean Success” from the University of Illinois, proves that yields benefit from proper nutrition. Seed treatments get the crop off to a better start. In mid-season, protect the canopy with foliar sprays to get the most energy out of leaves and into pods.

3. Weed management requires several modes of action.

The best options to manage weeds are continual field scouting, rotating chemistries with different modes of action, and incorporating pre- and postemergence materials. Scout fields early and treat as soon as weeds are present. A 20 to 30 percent infestation can slash yields by 20 to 50 percent. Watch especially for Palmer amaranth.

4. Understanding a complex disease triangle is key to disease control.

Disease strikes when a pathogen, weather conditions and susceptible host align. Knowing how weather impacts disease -- and where pests will attack -- is key to fighting back. For example, temperature and humidity differ under the canopy and with different row spacing. Weather patterns breed different diseases: Rhizoctonia, Septoria brown spot and Anthracnose prefer warm, wet weather. Pythium, bacterial blight, downy mildew, white mold and sudden death syndrome thrive in cool, wet conditions.

5. Using the same sprayer nozzle year after year hurts yield.

Nozzle wear hurts yields long before you can see a bad spray pattern. Choosing the correct nozzle size also can increase effectiveness by up to 40 percent. Smaller droplets give better coverage but with more risk of drift. The best option is to use a twin turbo nozzle because it maintains a narrow pattern with uniform droplets, and is less susceptible to drift.

C.W. Gaffner (left), soybean farmer from Greenville, Ill., and ISA director, prepares to monitor nozzle type and droplet size effectiveness with Rick Taylor (right), farmer from Chrisman, Ill.

ISA's Soybean College this year connected researchers and about 100 farmers for classroom and field sessions about boosting yields and profits. Farm Journal partnered with ISA on the checkoff-funded event in Heyworth, Ill. Learn more management tips developed through research checkoff investments at www.ilsoy.org/isa/profitability/management-matters/ and www.ilsoy.org/illinois-yield-challenge/soybean-college/.
Sure, news sources can tell you what’s happening in the world. But news alone can’t deliver an informed opinion about the impact on local grain prices. That’s the advantage of putting the Cargill® MarketPros to work for you with ProPricing® grain contracts. Because while you’re hard at work, so are the 142,000 people in 65 countries who help inform how the MarketPros make marketing decisions. Talk to your Cargill Farm Marketer to sign up today.
More than Yield Affects the Price youReceive.

TRUE: Soybean customers look at protein and oil content, not yield, when choosing suppliers and price. But what’s fact and what’s fiction when it comes to making money from a load of soybeans?

Livestock producers and animal nutritionists prefer the protein and amino acid profile of soybean meal over alternatives.

TRUE: Livestock producers and nutritionists want the most protein and best amino acid profile they can get when formulating feed. Soybean meal naturally has high levels of essential amino acids that are necessary for optimum animal growth and can’t be synthesized by animals in sufficient amounts. If protein levels from one supplier are less than ideal, customers may look elsewhere for higher levels or supplement lower-protein meal with non-soy alternatives that include dried distillers grains (DDGS), animal byproducts or synthetic amino acids.

Source: Doug Newton, Ag Consulting Team, Inc., livestock nutritionist

High-yielding soybean varieties that meet the industry standard of 35 percent protein and 19 percent oil are hard to come by or simply don’t exist.

FALSE: Not only are both available, but farmers who rush their variety choice can pick a quality “dog” without even knowing it. All Illinois soybean farmers are urged to select varieties and ask their seed dealers for varieties that produce high yields and high protein and oil to keep Illinois soybeans the top choice of customers. The yearly seed variety decision affects not only the bottom lines of producers but their customers. Compare characteristics for your area at www.vipsoybeans.org and www.unitedsoybean.org/resources/tools/soybean-quality-toolbox/.

You can’t measure protein and oil level values.

FALSE: Protein and oil levels routinely are measured. That’s exactly what soybean customers do when they choose a supplier. The Estimated Process Value (EPV) is a calculation of the combined value of protein, oil and hulls that processors and crushers expect to get out of a shipment of beans. Although elevators pay farmers by bushel, protein and oil levels are the true drivers of price. Farmers get a hidden premium for beans with a high EPV, and a hidden discount for low EPV. Higher oil and protein levels also create higher demand, which also drives prices. Visit bit.ly/1cDz8w2 for an EPV/crush calculator from the Chicago Mercantile Exchange.

Source: U.S. Soybean Export Council Soybean Quality Survey and USDA sources

Soybean farmers get paid only for yield.

FALSE: Because more bushels mean a bigger paycheck at the grain elevator, farmers tend to focus solely on boosting yields when selecting seed. However, soybean buyers such as processors pay their suppliers more for high-quality beans because they can extract more oil and higher value meal. While yields always will be a critical payment factor for farmers, it’s ultimately the components – oil, protein and hulls in processed beans and amino acids in meal – that drive price.

Source: Richard Galloway, former crush plant executive, Quincy, Ill.

More than Yield Affects the Price you Receive.

TRUE: Soybean customers look at protein and oil content, not yield, when choosing suppliers and price. But what’s fact and what’s fiction when it comes to making money from a load of soybeans?

Livestock producers and animal nutritionists prefer the protein and amino acid profile of soybean meal over alternatives.

TRUE: Livestock producers and nutritionists want the most protein and best amino acid profile they can get when formulating feed. Soybean meal naturally has high levels of essential amino acids that are necessary for optimum animal growth and can’t be synthesized by animals in sufficient amounts. If protein levels from one supplier are less than ideal, customers may look elsewhere for higher levels or supplement lower-protein meal with non-soy alternatives that include dried distillers grains (DDGS), animal byproducts or synthetic amino acids.

Source: Doug Newton, Ag Consulting Team, Inc., livestock nutritionist

High-yielding soybean varieties that meet the industry standard of 35 percent protein and 19 percent oil are hard to come by or simply don’t exist.

FALSE: Not only are both available, but farmers who rush their variety choice can pick a quality “dog” without even knowing it. All Illinois soybean farmers are urged to select varieties and ask their seed dealers for varieties that produce high yields and high protein and oil to keep Illinois soybeans the top choice of customers. The yearly seed variety decision affects not only the bottom lines of producers but their customers. Compare characteristics for your area at www.vipsoybeans.org and www.unitedsoybean.org/resources/tools/soybean-quality-toolbox/.

You can’t measure protein and oil level values.

FALSE: Protein and oil levels routinely are measured. That’s exactly what soybean customers do when they choose a supplier. The Estimated Process Value (EPV) is a calculation of the combined value of protein, oil and hulls that processors and crushers expect to get out of a shipment of beans. Although elevators pay farmers by bushel, protein and oil levels are the true drivers of price. Farmers get a hidden premium for beans with a high EPV, and a hidden discount for low EPV. Higher oil and protein levels also create higher demand, which also drives prices. Visit bit.ly/1cDz8w2 for an EPV/crush calculator from the Chicago Mercantile Exchange.

Source: U.S. Soybean Export Council Soybean Quality Survey and USDA sources

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Source: Richard Galloway, former crush plant executive, Quincy, Ill.

Checkoff Fact: Protein and Oil Selection Matters

ISA, through checkoff dollars, created an in-depth white paper that demonstrates how protein and oil can affect profitability. “Looking Beyond Soybean Yields: Meeting Customer Needs with High Protein and Oil” is found at www.ilsoy.org/isa/profitability/key-profitability-research/.

September 2013
Biotech Food Labeling Talk Hits Home

While Illinois soybean farmers may be accustomed to ongoing debate in Europe surrounding the use of biotech soybeans as human food ingredients, new discussions in Springfield, Ill., about biotech food labeling hit closer to home. Labeling bills have been introduced in both the Illinois House and Senate, and Illinois Soybean Growers (ISG) is monitoring the situation.

“Both bills, SB 1666 and HB 3085, would require whole and processed foods for retail sales containing biotech ingredients to be labeled,” says Ron Moore, soybean farmer from Roseville, Ill., and ISA director who testified this summer at a state hearing held at Illinois State University conducted by the Senate Subcommittee on Food Labeling. “One of the outcomes of biotech labeling in Illinois would be an increase in the number of families suffering from food insecurity and hunger. Increases in direct and indirect costs with labeling will lead to increases in prices paid by consumers. It especially will be manifested in low-income urban and rural communities.”

Moore told the subcommittee that biotech labeling indirectly would send a message to consumers that biotech foods are unsafe or unhealthy. “This will only serve to increase the retail costs of food and discourage new advances in biotechnology that historically have been the hallmark of agricultural research in Illinois and contributed to the farmer’s unparalleled success in providing food, fiber and fuel for a growing world population,” he says.

Two additional Illinois Senate hearings were planned for Southern Illinois University Carbondale and in Chicago.

Labeling Movement Builds

Biotech labeling is not just an Illinois issue, it has popped up in more than 25 other states. The Grocery Manufacturers Association (GMA) believes challenges to the use of biotechnology have created an “unprecedented period of turmoil” for food producers. In a letter sent to trade groups this summer, GMA stated, “We have reached a pivotal point in this effort and believe now is the time to bring together a broad coalition to confront the challenges.”

California’s Prop 37, which would have banned the sale of thousands of common grocery products only in California unless they were repackaged, relabeled or made with higher cost ingredients, failed to pass last November. Prop 37 would have required the state to monitor thousands of food labels at grocery stores, retail outlets, farms and food companies.

Connecticut recently passed labeling legislation, and Maine’s legislature sent a bill to the governor to be signed. Connecticut’s law calls for all foods intended for retail use to be labeled if they contain biotech ingredients. The law would take effect Oct. 1, 2014, under the condition other states adopt similar measures. Additionally, the Vermont House passed its bill, and the Senate will see it in January. Washington has a proposition on its state ballot.

While the labeling issue gathers steam, Michael McConnell, ISA market access/issues lead, points out not all labeling proponents agree. Trade groups within the natural products industry, for example, are divided on labeling. The Natural Products Association (NPA) has endorsed federal legislation that would require labeling while the American Herbal Products Association (AHPA) has adopted a policy that advocates for federal regulation through legislation or a regulatory proceeding to voluntarily disclose ingredients are biotech-free.

Nitrates levels are a major concern within any watershed that feeds municipal water supplies. And while most farmers strive to efficiently use nitrogen and phosphorus, which can reduce input costs, one Illinois project focuses on more efficient application of those inputs to minimize nutrients escaping fields and finding a way into drinking water.

The Illinois soybean checkoff partially funds the Indian Creek Watershed project in Livingston County, Ill., to improve water, soil and nutrient conservation. Conservation Technology Information Center (CTIC) Project Director Chris Watts reports area farmers have increased their protective practices to nearly half of the watershed’s acres.

“We invest checkoff dollars in a wide variety of research and education programs, and the investment returns are clear in Livingston County,” says David Droste, soybean farmer from Nashville, Ill., and ISA director. “The checkoff helps farmers within the watershed use conservation practices to improve water quality, production and profits.”

Droste was among more than 200 people who attended a tour of the project in July. CTIC works with the local Natural Resources Conservation Service (NRCS), Soil and Water Conservation District (SWCD) and the Illinois Environmental Protection Agency (EPA).

CTIC Chairman Dave Gustafson, Monsanto, says the tour highlights farmer successes in protecting soil and water quality. “It is all about folks pulling together as a community to improve water quality and make sure the best possible practices are used across the watershed as we try to meet growing demand for food, feed and other materials,” he says.

While such programs are voluntary, an Illinois EPA representative at the event noted proactive programs are beneficial. He says Livingston County farmers see the return from their efforts, both in their operation’s productivity and community.

Cover Crops Come On

Cover crops were one of Droste’s biggest takeaways from the tour. Local farmer Daniel Steidinger and Illinois Council on Best Management Practices (C-BMP) Coordinator Mike Plumer demonstrated how to use cover crops to control erosion and improve nutrient cycling and water filtration.

“Determine which cover crop to plant based on what issues need to be fixed, and then pay attention to how to kill it. It will take a few tries and experience to get it right. We recommend starting with three, 10-acre plots of different options,” Plumer says. He suggests Midwest Cover Crops Council’s Cover Crop Decision Tool at mcccdev.anr.msu.edu/.

A farmer survey conducted by the CTIC during the 2012 drought found:

• Soybean yields improved 11.6 percent following cover crops.
• In hardest hit drought areas, yields were 14.3 percent higher.
• Surveyed farmers are rapidly increasing cover crops acreage, with an average of 303 acres of cover crops per farm planted in 2012. Farmers intended to plant an average of 421 acres of cover crops in 2013.
• Farmers identified improved soil health as a key overall benefit, along with reduction in soil compaction and soil erosion, and improved nutrient management.

Other effective conservation practices demonstrated during the tour are rotational grazing, no-till, variable rate nitrogen applications, drag-line manure application, drainage water management and saturated buffers. Learn how these practices work for area farmers at CTIC’s website, www.ctic.org/IndianCreek/.

Checkoff Fact: Project Funding Enhances Sustainability

David Droste says ISA’s checkoff funding of sustainability efforts is a good investment. “CTIC collects information from farmers who are adopting practices that ensure sustainability. They share that information with other farmers, so they also can improve their bottom lines and have positive environmental benefits,” he says.
SOUTH AMERICA IS TAKING OUR PLACE.

Scary thought, isn’t it? The good news is we can do something about it every time we choose a soybean variety to put into the ground. If we start getting closer to 35 percent protein and 19 percent oil, our beans would be a lot more attractive to domestic livestock producers and foreign markets—and we’d help stop the loss of export share to Brazil and other foreign competitors. It’s time to talk with your seed dealer or Certified Crop Adviser about protein and oil. Then visit VIPsoybeans.org to validate your seed selection and ilsoy.org for more information.
WISHH Makes Inroads Around the World

The World Initiative for Soy in Human Health (WISHH) remains active around the world. Below are some of the recent accomplishments noted by the American Soybean Association (ASA) and the National Soybean Research Laboratory (NSRL).

WISHH-ASA
- Two U.S. soy flour containers were exported to Guatemala as a result of the relationship WISHH formed with a Central American regional distributor and local bakery.
- More than 100 metric tons of U.S. value-added soy proteins were exported to three countries in Africa from January-March 2013.
- FEEDing Pakistan enabled a harvest of 20,700 fish, which were considerably larger in weight than in previous harvests. The project also afforded the ability to process floating fish feed made from U.S. soy for the first time.

WISHH-NSRL
- ISA directors Ron Moore (left) and Joe Murphy (right) participated in the first ISA-sponsored NSRL/WISHH Soy Nutrition Seminar for Poultry Producers in Haiti in July. Poultry is a growing production sector in Haiti and an opportunity for U.S. soybean meal.
- ISA and NSRL/WISHH hosted four Soy Nutrition Fairs for school children to learn about soy and nutrition in Central America and Haiti.
- Growth in the developing world hospitality industry presents opportunities for soy in menus of restaurants, hotels and institutional feeding programs. ISA and NSRL/WISHH offered Chefs Use Soy Workshops in Uganda, Tanzania, Kenya, Mozambique, Guatemala and Nicaragua, highlighting soy's nutritional, economic and taste value.
- Soy continues to be an important ingredient for its functional and nutritional characteristics for the meat processing and baking industries. ISA and NSRL/WISHH worked with meat processors in Uganda, Nigeria, Tanzania and Kenya to provide hands-on training on the use of U.S. high-valued soy protein products.

Mexico “Build Pork Demand” Campaign Yields Results

Mexico has become the first market other than Japan to import more than $1 billion in U.S. pork in a single year. The U.S. Meat Export Federation (USMEF) says a well-designed, strategic campaign focused on direct consumer communications can increase pork consumption in Mexico even more. And more U.S. pork sales will require more soybean meal for feed rations.

With funding assistance from the Illinois soybean checkoff, USMEF is promoting the eating pleasures of pork, its convenience to cook at home, and addressing fat myths and other possible negative perceptions that limit pork consumption. Messages are targeted at 25- to 45-year-old mothers from middle- and lower-middle socioeconomic levels with an objective of pushing families that eat pork once a week to increase consumption to at least twice per week.

USMEF ran more than 300 television spots on open and segmented national television stations, placed 350 biweekly bus stop ads and 426 subway ads. Point-of-sale materials, including banners, recipe cards and meat case dividers, also were distributed and positioned.

“Annual per capita consumption of pork in Mexico is about 34.5 pounds compared to 60 pounds in the U.S. A 2.2 pound increase in Mexico’s per capita pork consumption would translate into an additional 37,000 metric tons of additional U.S. pork volume exports per year. If the campaign is successful in increasing per capita consumption, the U.S. pork industry will capture a significant share of the added growth due to its comparative advantage and access afforded through trade agreements,” says Chad Russell, USMEF regional director for Mexico.

USMEF is measuring the impact the campaign has on pork consumption during a three- to five-year period. First-year campaign results show the target audience reported a 30 percent increase in purchased amounts and a significant increase in purchase intentions and consumption.
The soybeans we grow are important to so many people in Illinois and around the globe. Be part of ensuring Illinois soy is the highest quality, most dependable, sustainable and competitive in the global marketplace.

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PRODUCING RESULTS
Funded in part by the Illinois soybean checkoff.
Companies and organizations from the farm to the supermarket are working toward a shared goal of sustainability. But what does that mean for Illinois soybean farmers? For some, sustainability may be seen as reducing farm inputs. But it also may include supporting local communities and protecting the environment while increasing production to feed future generations.

“Sustainability is a priority of soybean farmers and industry, and we’ve been doing a good job for decades, whether we have promoted it or not,” says Ron Moore, soybean farmer from Roseville, Ill., and ISA director. “Sustainability also is a consideration of shoppers and customers down the line, as they are increasingly asking more questions about how we raise our crops. We need to share our positive stories with them, but also continue to make improvements.”

Some of those stories were shared this summer through presentations at the semi-annual Illinois Soy 2020 forum in Bloomington, Ill. Soy 2020 is a checkoff-funded group that works with stakeholders to ensure the Illinois soybean industry remains a leader in the global marketplace. Presenters at the event included Mike Smith, assistant vice president of sustainability and real estate for Hy-Vee Inc.; Brent Babb, director of market access and trade issues for the U.S. Soybean Export Council (USSEC); and ISA staff.

Moore says a key ISA goal is to help farmers implement best management practices to maximize profitability, protect the environment and serve their communities. Education and outreach are critical components in the mission, including meetings such as Soy 2020.

Babb notes the U.S. soybean industry is already one of the most sustainable. He says continued efforts to share details will provide a competitive advantage for American farmers who have customers seeking certified sustainable soy. Demonstrating sustainable practices already is mandatory for some customers.

“We are working with the United Soybean Board, the American Soybean Association, ISA and other state associations to reassure export customers that we already meet their new requirements for sustainable soy production,” Babb says.

“We have developed a U.S. Soy Sustainability Assurance Protocol based on U.S. soy growers’ participation in conservation programs and adherence to sustainability related laws and regulations.”

Food and packaging waste become bigger sustainability losses as products travel down the production line, Hy-Vee’s Smith says. He highlights the need for cooperation between all market segments to achieve a healthier “triple bottom line” -- social, economic and environmental needs.

He stresses all three factors must work together for sustainability to be successful. Hy-Vee Inc. implements programs in five areas: green buildings, energy and resource conservation, waste reduction and recycling, products and sourcing, and packaging and supply chain improvements.
SoyCam Tells 2013 Season Story

Every soybean field has a story to tell, and 10 Illinois soybean farmers provide a front-row seat to their crops through SoyCam.com. The goal of the Illinois soybean checkoff-funded project is to give visitors a unique glimpse into the state’s soybean industry.

SoyCam.com also can be useful to other farmers. Participating growers document how they use different soybean varieties and crop management techniques to respond to any challenges. For example, early rains in 2013 delayed planting for many. Viewers can compare crop production stages on different farms. Also, Japanese beetles hit some fields harder than others, which viewers can see in many of the SoyCam galleries posted this year.

Profiles of each farmer photographer, production tips, crop updates and statistics related to soybean production are available on SoyCam.com. Receive regular updates on the SoyCam Twitter page (@soycam) and YouTube channel (@ilsoycam).

Here’s a look at the 2013 season so far.

Karl Spencer began the season by adding powdered graphite to his soybeans before planting to keep the seed meter lubricated and help the planter place seed evenly in the ground.

Bill Wykes displayed the difference in height of beans planted on April 30 (left) and beans planted on June 5 (right). Notice the bloom visible on the earlier planted soybean.

Deb Moore showed the damage Japanese beetles caused to her soybeans by midseason.

Ross Prough reported his early August soybean plant height at 34 inches tall.

Gary Berg entered August with double-crop soybeans gaining ground on wheat stubble.

Kate Hagenbach revealed soybeans as they began to grow in the pod.
I have to give credit where credit is due; this land that our family has been privileged to farm is a gift from God. Even through the ups and downs, this is something as a family we don’t ever forget. It's something I love and I guess if you love something that's what you ought to be doing. That’s why I farm.

Steve Sowers - Colchester, IL

Share your story at www.WhyIFarm.com