Celebrating Generations of Illinois Soybean History

• Embracing the Past.
• Envisioning the Future.
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5 Illinois has Storied History with Soybeans
Soybean seed found its way into a garden in Alton, Ill., in 1851. It was 40 years later before the crop was tested commercially and eventually became an economic mainstay on Illinois farms. Thomas Hymowitz, University of Illinois professor emeritus, fills in the rest of the history.

7 ISA Tackles Key Issues During Last Five Decades
Many diverse issues have been discussed during the Illinois soybean membership organization’s existence. Take a look back at some of the critical state and federal policy happenings that have contributed to the way soybeans are grown today.

12 Illinois Soybean Production Evolves from Hay to Commercial Commodity
From horse to machinery to technology, soybean production has changed dramatically during the last century. ISA director and farmer Don Guinnip shares his thoughts about the evolution of production and machinery. Guinnip’s family has farmed for more than 170 years.

16 Extension, Crop Advisers Remain Long-Time Production Partners
Soybean farmers have always relied on advice from crop experts to make the most of production. Extension specialists and private crop consultants alike help increase soybean yields and profitability. Read more about the events that forged these critical partnerships.

17 Three ISA Staff Leaders Guide State Soy Industry
In the 50-year history of the Illinois soybean membership organization, only three men have served as executive director or CEO. All three share their perspectives from their times of leadership, along with some of the key events that have shaped the state’s history.

39 Soybean Production: From Chinese Legend to Feeding the World
Historic references to soybeans worldwide date back 5,000 years. How is it that soybeans first cultivated in Asia became a major cash crop in the United States? Learn some of the key facts that are part of the soybean seed history and how the industry is poised to help feed the world.

42 Soybean Processing Takes Hold in the ’20s
Soybeans may have been first raised as a hay crop, but once researchers discovered the meal and oil, the processing industry grew rapidly in Illinois. Read more about development of soybean crushing in the state and the challenges and opportunities the industry faces.
Embracing the Past, Envisioning the Future

The Illinois Soybean Association (ISA) officially kicked off its year-long celebration of its 50th anniversary at the 2013 Farm Progress Show. We also are celebrating the rich history of the past 100 years of soybean production in the state. This issue of Illinois Field & Bean is devoted to many of the accomplishments our industry has seen and those who have helped grow it.

Our theme is “embracing the past – our legacy of leadership, market development and soybean production in Illinois – and envisioning the future – our goal of using 600 million bushels of Illinois soybeans by 2020”. I would be remiss if I did not thank our anniversary committee for their time and commitment. Don Guinnip, soybean farmer from Marshall, Ill., is chair of the committee. He is joined by ISA directors Sharon Covert, Tiskilwa, Ill.; C.W. Gaffner, Greenville, Ill.; Ron Moore, Roseville, Ill.; Tim Seifert, Auburn, Ill.; and immediate past director Ross Prough, Greenfield, Ill.

Our vision is to enable Illinois soybean producers to be the most knowledgeable and profitable around the world. Part of that success comes from the strength of Illinois soybean production, which has grown from just 2,000 acres 100 years ago to about nine million acres, or one-fourth of the state’s land mass, today. Illinois soybeans generate more than $5 billion per year in direct sales alone. The economic impact is multiplied by Illinois processing, livestock and transportation industries. As a result, the volume of Illinois soybean production has grown from nothing to more than 460 million bushels in the past century.

We are blessed that Illinois has the climate, cropping systems and ready access to domestic and global markets to continue growing soybean production while reducing its environmental impact. For 100 years, Illinois farmers have been strong land, water and air stewards, and we will remain sustainable caretakers of our precious resources moving forward.

I hope you will take time this Thanksgiving holiday to reflect on our great soybean history and heritage and share your agricultural bounty with others less fortunate.

Watch for more anniversary celebrations throughout the next few months, including the upcoming Illinois Commodity Conference this month in Normal, Ill. We will conclude our year-long anniversary celebration with our 2014 annual meeting in Champaign, Ill., next July. Join us in embracing the past and envisioning the future.

Bill Raben
ISA Chairman
On Christmas Day in 1850, the U.S. merchant ship Auckland sailed from Hong Kong for San Francisco, Calif., carrying a shipment of sugar. About 500 miles off the coast of Japan, the Auckland came across the Eiriki-maru, a Japanese vessel drifting helplessly on the sea. The crew of 17 was removed from the ship and taken aboard the Auckland. The Japanese took aboard some of their belongings, including navigational equipment and agricultural foodstuffs.

On March 4, 1851, the Auckland arrived at the port of San Francisco. The Japanese were not permitted to leave the ship and were kept in quarantine until March 16. The youngest member of the Japanese crew was a 14-year-old boy named Hizoko. Subsequently, Hizoko changed his name to Joseph Heco and was the first Japanese to become a naturalized U.S. citizen.

About that same time in Illinois, Dr. Benjamin Franklin Edwards got “gold fever.” He left his family in Alton, Ill., in 1849 and headed to San Francisco. Edwards was not the usual type of fortune seeker, for he already was a member of a wealthy and influential family. His brother, Ninian, was chief justice of the Kentucky Court of Appeals and later was appointed by President James Madison as the first territorial governor of Illinois. Later he was elected governor and U.S. senator. Edwardsville, Ill., and Edwards County are named for Ninian Edwards.

Benjamin Edwards had taken charge of the land office of Edwardsville in 1827, at the request of his brother. A decade later he moved to Alton, and for a short period of time served as postmaster. He moved to St. Louis in 1844, and remained there until 1849. When Dr. Edwards left St. Louis for San Francisco, his wife and two daughters moved back to Alton.

Soybeans Arrive in Illinois in 1850s

On March 15, 1851, Dr. Edwards was scheduled to depart San Francisco on his return voyage to Alton. At the port, while waiting for his ship to take on provisions, he medically examined the quarantined Japanese on the Auckland and received as a gift soybeans called Japan peas. The next day, the Japanese were permitted to go ashore. Benjamin Edwards arrived back in Alton, April 29, 1851, carrying the soybean seed among his personal possessions.

Dr. Edwards gave the soybean seed to John H. Lea of Alton, who planted them in his garden in 1851. Lea was a member of the Alton Horticultural Society. After harvesting his soybeans, Lea distributed them to colleagues in Davenport, Iowa, and Cincinnati, Ohio. These were the first soybean seed planted in those states and subsequently were distributed throughout the U.S.

For the next 40 years, the new soybean crop was tested in the U.S. for use in pastures as hay, silage and soiling, alone or in combination with other crops. Feeding experiments were conducted with horses, poultry, sheep, cattle and milk cows. All parts of the plant were analyzed. Some experimenters lauded the value of the soybean, while others considered it worthless. The first soybean research in Illinois appeared in April 1896, Bulletin 43. In 1897, the Illinois Experiment Station published “The Cow Pea and the Soja Bean,” Circular 5.

Research Drives Soybeans into Early 20th Century

Two major technological advances occurred during the first quarter of the 20th century. In 1917, Osborne and Mendel demonstrated that unheated soybean meal was inferior in nutritional quality to properly heated soybean meal. Thus, the value of soybean meal as a feed and the potential for the development of a soybean processing industry were established.

The second advancement occurred in 1920, when Garner and Allard recognized the significance of length of day in the flowering behavior of soybeans and termed the response photoperiodism. Soybeans are still divided into...
maturity groups based upon their response to day length.

From the early 1900s until 1924, North Carolina was the leading soybean production and processing state. But in the 1920s, three University of Illinois Department of Agronomy professors were convinced that soybeans in rotation with corn ought to be centered in Illinois and surrounding states. The professors, William L. Burlison (administration), J.C. Hackleman (Extension) and Clyde M. Woodworth (plant breeding) spent 30 years working with the state legislature, farmers, private companies and others, and were successful in committing Funk’s Seed Company to multiply seed for production and Staley Co. and ADM to process the seed.

Soybeans Take Hold as Illinois Crop in 1920s

In 1924, only 400,000 acres in the entire U.S. were planted to soybeans for seed production. By 2012, more than nine million acres were planted to soybeans in Illinois alone.

Production continued to rise in Illinois through the 1950s. Richard Bernard, a USDA soybean breeder stationed at the University of Illinois from 1954-1988, became another part of the Illinois soybean success story. By the mid-1980s, more than 40 percent of all soybeans grown in Illinois were derived from his breeding program, including the variety “Williams 82.”

In the early 1980s, changes in U.S. patent law created a favorable business environment for private companies to develop and market their own soybean varieties. Today, more than 95 percent of the soybean varieties planted in Illinois are derived from private enterprises. At present neither the USDA nor University of Illinois support major soybean breeding programs. Instead, current soybean researchers focus their attention to educating future plant breeders and geneticists. Faculty also are directing research toward fundamental, or basic, science.

Perennial Relatives Key to Future?

When I joined the faculty in 1967, I raised the question, “Where are the wild perennial relatives of the soybean?” At that time, the USDA soybean collection had six species. However, after spending a major portion of my career hunting down the wild relatives in Oceania, Australia and Asia, the USDA collection now has more than two dozen different wild perennial relatives.

In 1992, my lab published a paper outlining success in hybridizing a soybean with Glycine tomentella (from Australia) and recovered derived fertile lines. I am convinced that these wild perennial relatives of the soybean eventually will play a vital role in future breeding programs.

From the first soybean planted in Illinois in 1851 to the present, the University of Illinois and state of Illinois have played major roles in what is now commonly called “the soybean industry.”

By Theodore Hymowitz, University of Illinois professor emeritus

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Veteran Soybean Researcher Reflects on Early Beginnings

Theodore “Ted” Hymowitz, University of Illinois professor emeritus, spent his career working with soybeans. He describes his career:

“In late January 1959 after my discharge from the U.S. Army, I enrolled as a Ph.D. graduate student at Oklahoma State University. During the spring, I assisted my research advisor, Ralph Matlock, with planting variety trials. This was my first experience with soybeans.

“My B.S. and M.S. degrees were obtained from Cornell University and the University of Arizona, but I cannot recall as to whether soybeans were mentioned in any of the classes at either institution. In Oklahoma, the soybean was considered a promising new crop and my assistantship was funded by a USDA grant. I also met Edgar Hartwig, the regional soybean coordinator. Throughout my career, I kept in touch with him.

“As a graduate student at Oklahoma State University, Marlowe Thorne was head of the agronomy department. I was selected to become a Fulbright Student Scholar to India. As a result, I became well known to Professor Thorne and he became aware of my interests in plant exploration, germplasm resources, plant breeding, genetics and the history of cultivated plants. A few years later, he became head of the University of Illinois Department of Agronomy and was instrumental in my joining the faculty for the bulk of my career.

“While at Illinois, I was able to conduct research on the variation in and genetics of biologically active and anti-nutritional components of soybean seed. I also conducted plant exploration trips to Asia, Oceania and Australia to locate potential germplasm resources for variety improvement.”
Many, diverse issues have been discussed by Illinois soybean farmers during the last 50 years, through meetings in Washington, D.C., Springfield or local communities. Below are some of the significant issues that have caught the attention of the state’s farmers:

- **Federal farm policy.** Various issues over the years have affected federal farm policy:
  - Tax treatment of farm losses and impact on outside investors.
  - Percentage of net farm income government payments garnered.
  - Rapid changes in farmland values and the effect on estate tax laws.
  - Farm labor and immigration regulations.
  - Property rights and land use.
  - Pesticide availability, use and environmental impact.
  - Water rights and resources.
  - Multiple conservation programs.
  - Push from government support to market-oriented policy and crop insurance.
  - Global trade and trade barrier impacts and free trade agreements.
  - Production research funding.
  - Environmental protection, food supply safety and biotech trait approvals.

- **Soybean quality and composition.** Throughout its history, ISA has pursued legislation and/or regulations as related to soybean foreign matter in export shipments, grade standards, discounts, international trade barriers and biotechnology.

- **Food & Drug Administration (FDA) approval of the soy protein health claim.** In 1999, ISA efforts were instrumental in the push for the claim: “25 grams of soy protein a day, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease.” FDA recommended consumers incorporate four servings of at least 6.25 grams of soy protein into their daily diet.

Throughout the years, ISA Soy Ambassadors have joined board members to visit legislators in Washington, D.C., to address crucial soybean industry issues.
Off-Season Weed Control

Weed control might not be top of mind during postharvest field work, but farmers can benefit from the application of herbicides in fall. More farmers are using a fall herbicide application with contact and residual weed control to help crops get off to a quick start the following season. Many farmers who experienced the cold, wet spring know that such conditions shorten their opportunity to get crops in the ground. Fall herbicide applications can help ease the time crunch so weed control isn’t a worry when it’s time to plant.

Melissa McDonald, agronomist with Mycogen Seeds, says fall weed burndown sets the stage for crops to get off to a good start.

“There are known benefits to fall herbicide applications,” McDonald says. “It can add flexibility to your spring weed control program by reducing weed cover. This allows soils to warm up and dry out sooner. It also sets the stage for better crop emergence and growth by decreasing competition and the potential for insect pressure from migrating and overwintering pests.”

McDonald recommends that farmers use multiple modes of action to control problem weeds and reduce the chances of those plants developing herbicide resistance. She cautions that fall herbicide applications won’t replace postemergence activities, but the approach can effectively control biennials, perennials and winter annuals, including common chickweed, marestail, purple deadnettle, mustards, pennycress and others. This can be especially effective for producers who use minimum or strip till practices.

Before considering a fall application, growers should consider what crop they’re planning to plant, as well as expected problem weeds for the next year.

“This is a relatively new approach, and many producers that have utilized the program have experienced success. It’s important to have awareness of weed history,” McDonald adds. “The approach controls overwintering weeds, which enables farmers to have a desirable seedbed at planting.”

Many factors, such as weed populations and planting schedules, affect spring weed growth, so fall herbicides don’t necessarily eliminate the need for a spring treatment. Still, a fall burndown can pay dividends in spring as part of an effective weed-control program.
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ASA Leads as National Soybean Voice

Soybean farming has changed dramatically since 1920. But even then, decisions made on Capitol Hill had a direct effect on the production and profitability of soybean farmers. The American Soybean Association (ASA) was established more than 90 years ago to be the advocate and grassroots voice of the nation’s soybean farmers during policy discussions. ASA has been a vigilant promoter and watchdog for soybean farmers when ag and environmental policy, government regulations and trade agreements are being developed.

Illinois Soybean Growers (ISG) became a state affiliate of ASA in 1964. Along with ASA, ISG has helped improve soybean farmer profitability in a number of ways. For example, ASA and ISG fought for biodiesel tax incentives that have improved soybean prices, increasing farmer net returns by more than $2.5 billion over the last several years. ASA and ISG also work to ensure farmer-friendly provisions in the farm bill.

ASA and ISG work on trade policy to open new markets for soybeans and soy products and make sure current markets stay open, including the Chinese market that accounts for more than half of U.S. soy exports. Trade agreements have resulted in billions of dollars in sales of soybeans, soybean meal and oil, in addition to pork and poultry exports.

ASA and ISG leadership is made up of soybean farmers. When either group testifies in front of a Congressional committee, educates federal and state policymakers and their staffs, or speaks to local or national media, soybean farmers do the talking.

While many Illinois soybean farmers are under the mistaken impression they are ASA members because they pay into the soybean checkoff, that is not the case. The soybean checkoff is specifically prohibited by law from influencing policy or lobbying on behalf of farmers. Lobbying and regulatory work is funded by soybean farmer memberships in ISG and ASA.

Key National Organization Milestones

• The first Corn Belt Soybean Field Day was held in September 1920 in Camden, Ind. Farmers at the event decided they needed an organization to further the goals of building a thriving soybean industry. The organization called itself the National Soybean Growers’ Association. The organization’s name was changed to ASA in 1925.
  • In early policy activity, ASA celebrated a major legislative victory when its work helped get a tariff levied on low-cost imported soybean cake and meal in 1928. In 1930, ASA helped enact a stronger protective tariff for soybeans, oil and meal.
  • In 1940, ASA established its headquarters in Hudson, Iowa, where it stayed until 1978 when the headquarters was moved to St. Louis, the current location.
  • In the late 1940s, ASA representatives began traveling regularly to foreign countries seeking new markets for U.S. soybeans, oil and meal. In 1956, ASA established its first overseas office, located in Tokyo, Japan. By 1984, ASA had 11 international offices.
  • In 1962, the Minnesota Soybean Growers Association was founded and became ASA’s first affiliated state soybean association. ASA today has 25 affiliated state associations.

Anniversary Memory

One of the greatest achievements of the Illinois soybean checkoff was to believe in the future of biotechnology and biodiesel by funding research that has led us to where we are today. Illinois soybean research always has been on the cutting edge of the future.

— Ken Dalenberg, Mansfield, Ill.

J.C. Hackleman talks with a crowd that attended a demonstration plot in 1941.
Past ASA Presidents from Illinois

Photos submitted by ASA
As Illinois farmers began to experiment with soybeans in the early 1900s, their production methods paralleled other crops grown at the time. Land preparation was done with either horse power or the rapidly developing farm tractor. Plowing, disk ing and harrowing were the most common soil preparations.

Early soybeans could be rowed like corn and cultivated or drilled with the common drill used for wheat and oats when planting, or soybeans could be broadcast and harrowed or rolled into the ground. Weed control mostly was limited to cultivation of rowed beans with some rotary hoeing. Late planting drilled beans helped with weed control, along with thick seeding.

Early soybeans in Illinois primarily were used for hay and forage crops or green manure and soil conservation purposes. Hay was cut with a sickle bar mowing machine found on most Illinois farms of the time. Hay then was raked into windrows after curing and either collected as loose hay and stored in a hay loft or baled with a hand-tied stationary baler.

Early soybean hay crops competed well with other legumes, such as alfalfa and clover. Many times the yield of tons of hay was much greater. Soy hay was an annual crop, and fit into many crop rotations well. Some soybeans had to be harvested for seed for the following season.

Combines were scarce or unavailable through most of the 1920s and into the 1930s, so soybeans often were cut with grain binders and shocked like wheat. When time allowed, the soybean bundles and shocks could be threshed with a common threshing machine.

As combines became more available during the 1930s, harvest efficiencies increased greatly. Pull-type combines gained popularity during the decade, but many Illinois farmers could not afford one until after World War II. Self-propelled combines first appeared in commercial production during the 1940s. By 1958, about 20 percent of combines were self-propelled.

As with the combine, development of pick-up balers around 1940 greatly reduced labor demand during hay making. However, widespread use was not achieved until the 1950s. Soy hay was dusty, and baling it was dirtier work than with grass or alfalfa hay. Eliminating pitchforks and hand wire tying from the operation was welcome progress.

By World War II, soybeans were becoming a major commercial grain crop. Haying of soybeans was on the decline, and the mechanization of Midwest row crop agriculture developed rapidly. Farmers began to realize that soybeans were a part of that mechanized future, although shortages of steel and rubber delayed the transition. Horse power faded quickly into the past.

By 1950, 90 percent of the soybean crop was harvested as whole beans. Combines, tractors and soil tillage implements were in much higher demand.

Most soybeans followed corn in rotation. The basic soil preparation process...
had changed little. Only the size and scope of machinery had advanced greatly. Tractors had electric starters, hydraulics, rubber tires, lights, faster speed gear ratios and more power than pre-war versions.

A moldboard plow was the primary tool used for turning corn stalks under, and a couple of diskings followed by a harrow for leveling completed seedbed preparation. A two- or four-row planter or grain drill was used for planting. Rowed beans slowly shifted from 40 to 30 inches. Tractor-mounted cultivators and rotary hoes were used for weed control.

New technology rapidly advanced combine capabilities. A huge increase in soybean production in Illinois resulted in most farmers acquiring a combine to harvest their own soybean and small grain crops. Pull-type combines powered by PTO drives from a tractor were most economical for Illinois farmers in the 1950s. Self-propelled combines appeared primarily on larger farms.

By the late 1950s, combines were designed to complete corn, soybean and small grain harvest. Early self-propelled combines used wooden bat reels on narrow heads, had small capacity clean grain tanks and very limited chopping and spreading ability of chaff and threshing debris. Many farmers were covered with dust and debris after operating the early cableless machines. Breathing the output from this process caused many uncomfortable hours and unrealized health problems, but it was better than previous methods and allowed for much greater productivity.

As yields continued to climb, handling grain became a bigger issue. Most soybeans were delivered to grain elevators at harvest. Very little on-farm storage existed. Wooden granaries held some soybeans prior to the advent of grain bins on farms. Small steel bins had appeared in the 1930s and 1940s only in limited quantities. Bins were filled by hand scooping or with multi-purpose elevators or hikers. On-farm augers were slow to develop prior to shelling corn.

Development of commercial grain bins for farm storing of all grains rapidly expanded during the 1960s. Aeration and drying systems soon became available, and farm storage of corn, soybeans and wheat became common practice in Illinois. The change brought about development of a commercial auger business. Large-volume augers were needed to fill farm storage bins and unload grain onto trucks at marketing time. Early augers were three or four inches in diameter with electric or PTO power. As volumes increased, augers quickly increased to eight to 10 inches so semi-trailers could be loaded in 30 to 45 minutes.

Beyond mid-century, equipment development became larger in terms of horsepower, speed, durability and technology. Bigger, more powerful equipment, more ease and comfort for the operator made soybean tillage practices easier, although they remained quite the same.

Two changes in the 1960s created greater developments. The chisel plow came into popular use, claiming advantages in speed, fuel savings, time and conservation benefits. Soybean herbicides that were effective in controlling common weeds and grasses were welcome additions to the crop farming system. Herbicides and insecticides opened many new doors in soybean production, the greatest and most far-reaching being the development of no-till. No-till was done with traditional row crop planters and double-disk openers or drills with opening coulters.

Until about 1970 little progress was made in reducing soybean harvest losses. In recent years, attachments such as floating cutterbars with hydraulic height control and pickup reels with hydraulic height and speed control have become common features. Bigger, more efficient farm machinery reduced the labor time and helped increase yields by reducing harvest losses.
Conventional tillage of the 1970s included clean plowing in the fall, leveling in the spring, incorporating twice, planting, rotary hoeing and cultivating twice. The system worked with the day’s cheap fuel, relatively inexpensive equipment and labor.

Soil erosion in the 1980s introduced conservation tillage into soybeans. One system was a two-year corn and soybean rotation with solid seeded soybeans planted into varying amounts of corn residue, followed by no-till corn. Crop residue management also became more popular.

Through the 1990s and into the 21st century, changes in soybean equipment came more quickly than in the past. Equipment became more specialized and technologically advanced with the introduction of precision agriculture: Global Positioning Systems (GPS), advanced computerization, satellite imagery and variable rate planting.
and applications. Today, tractors operate with much greater horsepower and meet lower emissions requirements, planters can seed many more rows at a time and harvest equipment measures yield on the go.

Biotechnology has revolutionized the way farmers look at soybean production, changing the varieties planted and the pest control methods required to produce more yield per acre.

The advent of no-till and continued mechanization has allowed huge gains in production efficiencies. In 1950, 203,000 farms in Illinois operated 31.7 million acres with an average farm size of 156 acres. By 2010, the number of farms had dropped to 76,000 covering 26.7 million acres with an average farm size of 351 acres. Illinois soybean production will continue to become more efficient in the future as farmers participate in helping feed the world.

Don Guinnip, soybean farmer from Marshall, Ill., is ISA Production Committee chair and ISA Anniversary Committee chair. He farms ground that has been in his family for more than 170 years.
Illinois soybean farmers look to production industry experts to help increase yields and profitability. From Extension specialists to private crop consultants, farmers rely on specific advice. Here’s a look at some of the key dates in Extension history:

1887 Congress created Agricultural Experiment Stations at land grant colleges to conduct research to improve farming methods.

1914 Smith-Lever Act passed nationwide to establish the Extension Service.

1915 A grain harvesting demonstration in DeKalb County showed how the “modern” automobile could be used to pull grain harvesting equipment.

1927 Railroads cooperated with Extension to create “Cow, Sow and Hen Special” railroad cars that featured exhibits with animals and various types of equipment and how to make up feed rations. The train made 29 stops in 19 Illinois counties in seven days.

1954 U.S. Secretary of Agriculture Ezra Taft Benson directed that all Extension employees would be under USDA, separating Extension from Farm Bureau and other farm groups.

2012 Cooperative Extension marked the 150th anniversary of the Morrill Act that established land-grant universities to educate residents in agriculture and other practical professions.

2013 In cooperation with the University of Illinois Agricultural Experiment Station and University of Illinois Extension, the Department of Crop Sciences currently manages a network of six research and education centers throughout the state as a service to crop producers, landowners, crop consultants, advisers and the agricultural industry. The group of centers is a system of field laboratories and classrooms accessible without charge to those who wish to obtain timely information about soil management and crop production practices applicable to the major soil resource areas of the state.

CCAs a Natural Farmer Colleague
Illinois soybean farmers might notice the Certified Crop Adviser (CCA) title popping up on a regular basis. Illinois CCAs and ISA see benefits from a stronger working relationship.

“As ISA celebrates a productive 50 years, we also are proud to have made an impact on Illinois agriculture for 20 years,” says Andy Knepp, current chair of the Illinois CCA board.

More than 1,300 CCAs today work with soybean farmers in Illinois to provide strong, sound agronomic advice on general crop management, pests and nutrient management. CCAs are required to earn 40 hours of continuing education every two years. ISA has been working with the Illinois CCA board to make more continuing education available to educate advisers and, in turn, their grower customers about producing soybeans in the state.

“CCAs are professionals who voluntarily pass rigorous exams and make an effort to stay on top of current trends and information that will help grower-customers in an ever-changing agriculture climate,” says Knepp. “Our board looks forward to expanding our partnership with soybean growers to continue improving things like protecting the environment and increasing their bottom lines.”

Photo submitted by University of Illinois Extension
1972 newspaper clipping touts Extension’s future.

Photo submitted by University of Illinois Extension
Envisioning the Future.
Three ISA Staff Leaders Guide State Soy Industry

In the 50-year history of the Illinois soybean membership organization – known previously as the Land of Lincoln Soybean Association, Illinois Soybean Association and now Illinois Soybean Growers – only three men have served as hired staff in the role of executive director or CEO. Bill Tiberend was the first to lead from 1970-1990. Lyle Roberts headed the organization from 1990-2010. Craig Ratajczyk has been CEO since Roberts’ retirement.

Innovative Spirit in Early Start

While the Land of Lincoln Soybean Association (LOLSA) was established in 1964, the first and only employee of the organization, Bill Tiberend, was not hired until 1970. A group of farmers led by Lyle Grace, and J.C. Hackleman, faculty member at the University of Illinois, had come together to organize the association, develop the Illinois soybean industry and conduct variety testing. The American Soybean Association (ASA) was already in existence, based in Hudson, Iowa. ASA provided market development direction and owned the magazine Soybean Digest.

“I technically worked for Illinois Farm Bureau (IFB), and signed an agreement to provide management services for LOLSA,” remembers Tiberend. “We tried to encourage more farmers to become members right away and tried to start a checkoff, which was a new idea then.”

Tiberend says Illinois Gov. Dan Walker in 1972 joked that farmers only planted soybeans in their back fields where they would not be seen. But it was not long before soybeans began to move to the front burner as their value for multiple uses was discovered.

“Soysbeans were an afterthought during President Kennedy’s trade negotiations, but became part of the mix during European trade discussions for duty-free access,” says Tiberend. “ASA had offices in Japan and Germany, and were looking to expand their reach. The U.S. government was using ‘soft currency’ in less developed countries to promote commodities to exporters.”

As international marketing efforts blossomed, Tiberend says LOLSA focused on ways to expand membership and production research closer to home.

“We had about 4,000 members in the early 1970s, and then we got the checkoff established,” says Tiberend. “No plant breeders in Illinois were dedicated to soybeans, so we established a position with Cecil Nickell at the University of Illinois. We had no nematologist to address SCN (soybean cyst nematode), so we got Oval Myers at Southern Illinois University Carbondale. We figured if we could not influence price, we could increase yields to improve profitability.”

LOLSA then turned some attention to researching and promoting soybean meal use for hog and poultry rations. Internationally, ASA began to receive appropriations from USDA’s Foreign Agriculture Service (FAS) to supplement international market development efforts.

“In the late 1970s, commodity prices soared, interest rates skyrocketed and the dollar strengthened into the next decade. That made soybeans more expensive worldwide, and we saw embargoes and then demand fell. LOLSA got more involved with policy decisions,” he says.

Tiberend says policies were a roadblock to furthering the soybean industry. To move forward, LOLSA sought an increase in the voluntary checkoff from one-half cent to two cents per bushel. The referendum failed, but they did manage to increase the checkoff to one-cent.

“Farmers found sudden death syndrome (SDS) in their fields, and we attacked it vigorously. We also addressed grade standards changes and battled unfair discounts for soybean mold,” he says.

“We began hosting international groups, and had 10-15 teams per year come to Illinois to see the vastness of Illinois soybean production, address foreign matter concerns and to provide technical training for livestock producers overseas. We tried to be innovative in all the things we did.”

Research and Global Expansion

Much of the checkoff monies spent at the time Lyle Roberts took the helm were invested in international marketing efforts led by ASA around the world.

“AsA was well respected overseas and others always sought out ASA assistance,” he says. Roberts had previously

“We tried to encourage more farmers to become members right away and tried to start a checkoff, which was a new idea then.” — Bill Tiberend

Photo submitted by ISA
worked within IFB’s export division and as LOLSA’s director of field services, so he was familiar with international soybean marketing activities. “Most of the big markets were abroad, and we helped open new offices as every other row of production was exported. We were involved with something going on overseas all the time.”

He remembers South America was beginning to take part of the U.S. market share. “We began to see that Illinois soybean farmers needed production research support so they could be the first to adapt new technology and meet the growing worldwide needs for soybeans,” he adds.

LOLSA, which was renamed to ISA under Roberts’ watch, was keen on getting all of the agricultural state universities involved in research. “We had a lot of variation in state soybean production, so everyone needed to have a say,” he says. “We helped start C-FAR (Council for Food and Agricultural Research) to increase research efforts. We were the only state with a managed research program with all our universities, which maximized our checkoff investment.”

Other firsts included ISA’s decision to become involved with aquaculture feed research. On the human side, soy was less than a desirable protein source. ISA and university researchers led the charge to petition the Food and Drug Administration (FDA) for health claim labeling.

“We helped start C-FAR (Council for Food and Agricultural Research) to increase research efforts. We were the only state with a managed research program with all our universities, which maximized our checkoff investment.” —Lyle Roberts

Lyle Roberts (left) talks with Ron Moore, ISA director (right), during an ASA meeting break. Roberts says Illinois is fortunate to have innovative farmer leaders.

when others questioned them. Illinois is lucky to have farmers together in this group willing to stick to their vision.”

**Targeted Strategy Today**

After Roberts’ retirement, ISA’s membership and advocacy arm name was changed to Illinois Soybean Growers (ISG). Craig Ratajczyk, the current CEO, joined the organization after serving 13 years in the international market development and policy arena for ASA International Marketing, now known as the U.S. Soybean Export Council (USSEC).

“We have seen numerous changes and challenges in the global marketplace for soybean utilization, as well as soybean production,” says Ratajczyk. “For ISG and the Illinois Soybean Board (representing the Illinois soybean checkoff) to be relevant for Illinois soybean farmers for the future, newer and more sophisticated approaches are needed.”

Ratajczyk envisions more engagement by soybean producers and vested industries’ participants for more freedom to operate in an increasingly restrictive marketplace. As the world becomes more
Craig Ratajczyk (right) says for ISA to be relevant for the future, newer and more sophisticated approaches to the global marketplace and for soybean production are needed.

“We developed Voice for Soy as a way for Illinois soybean producers to get engaged in policy issues. More advocacy efforts by ISG within state and national government also have been implemented,” he says. “Policies that are harmful to Illinois soybean producers need to be addressed. Collaboration with other Illinois agriculture industry associations and groups will allow the collective Illinois soybean producer voice to be heard.”

To prepare for the future, ISA has implemented a new strategic plan focused on five key areas: animal agriculture, transportation/biodiesel, yield/composition/profitability, freedom to operate and organizational excellence. Ratajczyk says growing and developing the domestic marketplace will have a large impact on farmers and the economy.

“There are numerous untapped and underdeveloped opportunities that exist in Illinois, the United States and in the Western Hemisphere,” he says. “That is where ISA is focusing its efforts, as international markets are serviced by ASA and the United Soybean Board through USSEC.”

ISA also has zeroed in on a new goal of increasing utilization of Illinois soybean products by 25 percent by 2020. Ratajczyk says having a quantifiable targeted goal has modified the way ISA participates in the market as a valued and relevant industry participant.

“Attaining ISA’s vision and mission is critical to Illinois soybean producers’ long-term competitive and comparative advantage,” he says. “We see an impact through the five priority areas, and we are optimistic about the ability of Illinois producers to be global leaders in production, research, demand building, infrastructure development and advocacy efforts. With a strong board, staff and team dedicated to excellence and continuous improvement, the Illinois soybean industry will be the stalwart for world food, feed and fuel industries.”

Craig Ratajczyk (right) says for ISA to be relevant for the future, newer and more sophisticated approaches to the global marketplace and for soybean production are needed.
History Records Many Approaches to Soybean Marketing

When Illinois farmers first began marketing soybeans, one of the tools offered was through the Soybean Marketing Association. A University of Illinois Extension Bulletin from 1932 reports, “During October 1929, the Soybean Marketing Association was formed in Illinois for the purpose of representing the interests of growers and stimulating industrial consumption. The Illinois Agricultural Association was largely instrumental in bringing about the soybean organization, and the management contract is vested with its affiliate, the Illinois Agricultural Service Company, Chicago, Ill. The members of the Soybean Marketing Association, operating at first under a three-year marketing contract, consigned their crop to the association pool...The final price received by members of the association was 25 3/4 cents a bushel.”

During October 1929, the Soybean Marketing Association was formed in Illinois for the purpose of representing the interests of growers and stimulating industrial consumption.

As soybean production and demand rose through the two world war periods, so also did the price of soybeans paid to farmers. Arthur Guinnip from Marshall, Ill., received $2.12 per bushel in 1949, as noted on his sales ticket from that time.
Futures Markets Set Price Direction

Grain trade expanded in the early 1800s, and the Chicago Board of Trade established new grading and sampling standards for the agriculture industry. New methods of production, storage and warehousing helped establish Chicago as a major power. In 1893, Chicago’s World’s Fair hosted 27 million visitors, and the Chicago exchanges opened their doors to the public.

The soybean futures contract was the first of the soybean complex to begin trading, Oct. 5, 1936. Soybean meal and oil were added in the 1950s to what now is the Chicago Mercantile Exchange.

Several Soy Trading Contracts Added Over Time

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(Above) Grain inspection desks were part of the futures trading experience in the 1940s.

(Left) Soybean complex futures prices were updated electronically on these boards above the trading floor during the 1970s.

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Andrew Sloan Draper, University of Illinois president from 1894-1904, said, “The wealth of Illinois is in her soil, and her strength lies in its intelligent development.”

Illinois farmers broke new ground planting soybeans in the early 1900s. Visionaries who had the foresight to see the value included Robert Morris, Richland County; Russel Davis, Adams County; and Charles Meharry, John Smith, C.H. Oathout and William Riegel, Champaign County.

In 1914, just 2,000 acres of soybeans were grown in Illinois. By 1923, the number surpassed 540,000 acres. Three University of Illinois agronomists were instrumental in the development. William L. Burlison’s research efforts led to development of industrial uses for soybeans, including a new method for using soybean oil in paint. Clyde Woodworth was a world-renowned soybean breeder and the first soybean geneticist. He developed Illini, Chief and Viking varieties and assisted in developing the Lincoln variety. J.C. Hackleman taught farmers the value of planting beans, helped them select high-yielding varieties and showed them how to inoculate soybeans. Hackleman was one of ASA’s founders in 1920.

The University of Illinois soybean laboratory was established in 1936. The northern soya germplasm collection was created in 1949. The Morrow Plots, the oldest continually used experimental agricultural fields in the U.S., are a National Historic Landmark at the heart of it all. The 137-year-old plots have provided invaluable data on the effects of crop rotation, natural soil nutrient depletion and the effects of various manmade and natural fertilizers on yield.

One major development in the promotion of soybean research in Illinois happened in 1993. With support from the Illinois soybean checkoff, the National Soybean Research Laboratory (NSRL) was established. NSRL provided the avenue for Illinois soybean farmers to be assured that soybean research, outreach and education they were funding would be recognized worldwide.

Ongoing research at the University of Illinois aims to increase Illinois soybean production profitability by increasing and protecting yield through genetic resources and technology, discovering and utilizing valuable genes and pathways, and using the latest technologies in genomics and biotechnology to improve and enhance soybean lines. Current projects include:

- Research that explores management factors that relate to soybean productivity and can offer a systems approach for high-yield production.
- Swine research explores the benefits of feeding high-soy diets to disease-challenged pigs.
- Field study research continues to determine the influence of soil residual herbicide application rate, timing and combinations on weed control and soybean yield.
- On-farm research revolving around soybean diseases, insects and pests provides insight into best management practices.
- Soy protein research also plays a pivotal role in the goal of reducing malnutrition. NSRL connects soy protein to the global challenge of hunger.

The ISA/University of Illinois partnership has a long and productive history of benefiting soybean farmers through valuable research with measurable results. Innovative and productive collaborations will continue to help realize the full value of soybean production.
CONGRATULATIONS TO THE ILLINOIS SOYBEAN ASSOCIATION.
Serving the best interests of farmers for 50 years.
In its 102-year history, the Illinois State University (ISU) Department of Agriculture has made many contributions to the soybean industry. From applied research at the ISU farm to human capital development, soybeans are an important part of the department’s past.

Many applied research projects have focused on the importance of soybeans to livestock. The Aquaculture Center, which operated from 1988-2002, demonstrated how tilapia could be raised using indoor recirculating water and soybeans as part of a sustainable diet. Many nutrition studies at the ISU farm have been conducted to improve the growth of pigs using soybeans.

Soybeans were grown recently at the ISU Horticulture Center, which is visited by about 3,000 people annually. Guests of all ages had the opportunity to see what a soybean plant looks like and learn about the benefits of soy in the human diet and its role in biodiesel production.

Soybeans were an integral part of a crop contest held at the ISU farm where teams of students grew corn and soybeans in rotation with the goal of making the most money from their plots. This contest applied classroom theory, agronomy and marketing. Recently, many of the ISU faculty, along with ISA and industrial partners, co-authored the Illinois Soybean Production Guide, which contains valuable information for farmers to break their own production barriers.

Currently, faculty are engaged in several soybean projects. Several are working on the ISA Yield Challenge with demonstration plots at the ISU farm. Students in the Ag Science Club are helping facilitate the contest. The swine herd continues to be used to evaluate soybean diets. And recently, researchers from the department teamed up with faculty from the ISU College of Business to explore increasing soybean exports to Turkey.

Perhaps the department’s greatest contribution to the industry is human capital development. The department has graduated approximately 5,000 people who collectively have made countless contributions to the soybean industry. Many have gone on to teach high school agriculture, work in the agriculture industry, or return to the farm.

A highlight of two graduates demonstrates the types of contributions that have been made by ISU alumni. Roger Boerma, a 1968 graduate, is professor emeritus at the University of Georgia, executive director of Georgia Seed Development, and a nationally recognized soybean geneticist. His efforts led to development of the Center for Soybean Improvement and for Applied Genetic Techniques. During his career, he developed 25 varieties. More importantly, he established an organization that will continue to train new breeders for generations.

Lyle Roberts, a 1970 graduate and former ISA CEO, also has made numerous industry contributions.

As the ISU Agriculture Department enters its second century, it looks forward to continuing applied soybean research and outreach as well as producing graduates who will enhance the global food and agricultural industry by improving soybean production and profitability.
Congratulations Illinois Soybean Association. It’s been a pleasure to grow with you.
WIU: Synergy and Strong Tradition

Synergos is a Greek word which means “working together.” Today, we often use the term synergy to describe how working together provides a greater output than the sum of individual parts. Synergy is an appropriate description of the relationship between Western Illinois University (WIU) and ISA. WIU has a strong tradition of graduating students into industry and academia, and they are likely WIU’s greatest contribution to enhanced soybean production in Illinois.

Soybean farmers who visit agricultural supply or services businesses in west central Illinois may be served by at least one employee who graduated from WIU. Many farmers in the area are graduates, including past ISA director Rowen Ziegler. WIU also has graduates who serve as bankers or grain marketers or are in the livestock industry – a key Illinois soybean market.

Some WIU students continue onto graduate school before obtaining research positions where they contribute to new product or technology development. WIU ag graduates hold research and development or technical sales support positions at seed and ag chemical companies, and are instrumental in developing new varieties, crop inputs and traits.

Several WIU alumni fill Extension specialist positions at land grant universities. Examples include Bill Johnson at Purdue University and Vince Davis at the University of Wisconsin-Madison. Each has conducted research and prepared written resources that provide valuable advice for soybean farmers, some funded through the soybean checkoff and used by WIU faculty to teach scientifically-based and practical soybean production strategies.

ISA provides scholarships to some of WIU’s most outstanding students. Several continue to graduate school. Deanne Corzatt is working on a checkoff-funded project that will develop best management strategies for managing cover crops and winter annual weeds prior to soybeans.

WIU faculty also have a long relationship of working with ISA to address production challenges. Frank Gardner in the early 1970s worked on a checkoff-funded project to develop more profitable row spacing and plant population recommendations. Gordon Roskamp in the mid-1970s researched the interaction of metribuzin and atrazine on carryover issues and potential injury to soybeans. He was an early adopter and promoter of no-till soybean farming, and addressed its weed management challenges. He also established new herbicide demo plots at the University of Illinois farms near Monmouth and Perry, Ill., to help educate farmers. Mark Bernardes followed Roskamp as agronomy professor, and currently collaborates on projects that address cover crop and winter annual weeds and the effect of PPO herbicides on soybeans.

ISA established an endowment at WIU a few years ago that has funded several other soybean-related projects. Win Phippen and his undergraduate students have conducted research developing best management practices for pennycress as a winter annual cash crop before soybeans. Joel Gruver has conducted research on precision cover cropping before soybeans. Others have researched more basic questions of insect and microbial interactions.

Funding from the ISA is often used to support undergraduate student workers. For some, it piques interest in graduate school. For others, it helps apply their education on their own farms or in business. And all contribute to the synergy between WIU and ISA.

Gordon Roskamp (left) talks with farmers attending a field day in 2010. The WIU agronomy professor addressed weed management challenges in no-till soybeans during his tenure.
Happy Anniversary, Illinois Soybean Association!

MorganMyers is proud to partner with the Illinois Soybean Association.

We are Embracing the Past – your legacy of leadership, market development and soybean production in Illinois. And we’re Envisioning the Future with you – working to meet your goal of using 600 million bushels of Illinois soybeans by 2020.
SIUC: Applied, Pragmatic Research for Production Problems

The Southern Illinois University Carbondale (SIUC) soybean research program during the past four decades has conducted applied, pragmatic research to address the most problematic production challenges soybean farmers face in southern Illinois. SIUC’s focus has significantly enhanced farmer profitability through development of new varieties and germplasm releases with better resistance to soybean cyst nematode (SCN) and sudden death syndrome (SDS).

Early agronomists evaluated existing means to manage weeds, insects and diseases and looked for new ones. They studied soil fertility and assessed tillage practices. Breeders focused on producing new germplasm or varieties that offered higher yields and other desirable traits.

Several individuals have contributed to SIUC’s role. The late Harold Kuehn, farmer from Du Quoin, Ill., and SIUC graduate, achieved soybean yields in the early 1970s that were 70 percent greater than the county average – 54 bushels per acre. He served as American Soybean Association president and was a founding member of the Land of Lincoln Soybean Association. Kuehn’s influence propelled a core group of research faculty to enhance soybean production. He bequeathed his Dowell, Ill., farmland to SIUC, which is now the site of the Kuehn Research and Education Center.

Oval Myers primarily was a soybean breeder and agronomist who founded SIUC’s soybean breeding program in 1975. He was a pioneer for development and release of soybean germplasm and varieties to farmers and private breeders for improved SCN and SDS management. He directed almost 60 students to advanced degrees, with more than 20 from foreign countries.

Myers was a key founder in establishing SIUC’s Illinois Soybean Center. Established in 1997, the multidisciplinary “center without walls” strives to improve soybeans as a species, enable easier and more profitable production, and allow for wider adoption.

The late George Kapusta was a faculty member for more than three decades, serving as a recognized international leader for no-till weed management. He established collaborations with commodity groups, private industry and peer faculty to deliver effective, profitable weed management practices and technologies, and he trained more than 50 soybean graduate students.

Soybean utilization research also has grown during the last 20 years to include livestock feeding. SIUC is one of the leaders in the Midwest for aquaculture research with soy. Human nutrition and health with soy became an area of strength for research and outreach.

The SIUC soybean research program has grown progressively with strong farmer and ISA support. Traditionally strong research programs in production management, breeding and weed science have evolved to include solving challenges with molecular techniques and biotechnology. Saluki 4313, recently developed by SIUC’s Stella Kantartz, will offer farmers high-yield potential and built-in disease resistance for the future.

Oval Myers (in photo above) was instrumental in soybean disease research. George Kapusta (right) was a leader in no-till management research.
ISA is leading the way

for 50 years and counting.

CONGRATULATIONS

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Illinois a Natural Home to Soy

By Melinda Anderson, NSRL

A series of efforts to establish an official international research and education center for soybeans at the University of Illinois began in 1973, receiving enthusiastic support from the state’s farmers. The Illinois soybean checkoff provided strong backing to the project.

The idea of developing a major soybean research center in Illinois continued to blossom during the 1980s. The interest was largely sparked following the visit by university researchers and soybean farmers from Illinois and Iowa to the International Rice Research Institute in the Philippines. The group was on their return from a trip to the People’s Republic of China.

Next came meetings with University of Illinois College of Agriculture scientists and administrators that led to a new proposal for establishment of the National Soybean Research Laboratory (NSRL) at the University of Illinois. Planning committees were formed, and a formal vision for the NSRL began to take shape. Not only the American Soybean Association (ASA) but also soybean associations from Indiana, Iowa, Michigan, Minnesota and North Carolina provided strong letters of support for establishing NSRL.

In 1988, the College of Agriculture requested use of three floors of the former Veterinary Medicine Building on the Champaign-Urbana campus as NSRL’s site. Remodeling began in the fall of 1991, and the facility was formally dedicated in the fall of 1993.

Two Distinct Missions

NSRL today serves two important and distinct missions. As a major research facility within the College of Agricultural, Consumer and Environmental Sciences (ACES), the building is home to faculty, graduate students and administrative staff from several departments and from USDA. NSRL houses a broad range of major research programs in the areas of ento-
mology, plant pathology, breeding and genetics, food and nutritional sciences and international marketing.

The building also serves as the site of the analytical laboratory for the USDA Soybean Germplasm Collection. Many other university researchers in other areas, such as animal science and agricultural economics, are directly linked to research projects underway at NSRL.

National Scope

NSRL is fully committed to programs aimed at helping expand the size, scope and profitability of the U.S. soybean industry. As part of the effort, NSRL is dedicated to promoting effective communications and coordination among diverse stakeholders within the U.S. soybean industry.

Other efforts are underway to foster discussion of important issues affecting the industry through development of seminars, lecture series and workshops. NSRL also works to provide a convenient forum for development of new interdisciplinary, inter-institutional programs and research projects that are goal oriented and market driven. Programs provide soybean groups and organizations with ready access to a wide range of education opportunities, such as training sessions, formal courses, in-service education and tours of the facility. A fundamental characteristic of this national program is the commitment to an “open-door” policy for the public.

NSRL’s boundaries extend well beyond those of the campus and Illinois. Farmers, consumers, commodity organizations, processors and scientists all play major roles in shaping programs.

Multiple Research Efforts

NSRL has served as a catalyst for development of systems that increase the U.S. soybean industry’s coordination, efficiency and profitability. The Varietal Information Program for Soybeans (VIPS), funded by the soybean checkoff, is one example of a system that has enabled farmers and researchers to compare selected attributes of individual varieties.

NSRL also is involved in ISA’s managed research areas that are relevant to soybean farmers. NSRL has coordinated research related to weeds, soybean diseases and pests, breeding, biotechnology and emerging technologies, including Raman Spectroscopy.

NSRL has a history of partnering with industry stakeholders, including the North Central Soybean Research Program. Researchers coordinate soybean production studies with leading experts in soybean breeding, entomology, pathology, nanotechnology, nematology, genetics, weed science, climatology and virology. NSRL staff, along with researchers from the University of Illinois, Southern Illinois University Carbondale, Western Illinois University and Illinois State University, work closely with ISA, USDA and the United Soybean Board.

NSRL also has a long history of work with applying the NSRL is highly involved worldwide in processing, utilization and marketing techniques involving soy in meat, dairy, baking and snack applications.

Doug Winter, former ISA director and Illinois representative to the United Soybean Board from Mill Shoals, Ill., participated in a soy foods tasting during a Caribbean mission. NSRL coordinates programs to create soy-based solutions to address the global challenges of malnutrition.
value of soy in animal nutrition, industrial applications and for human consumption. Animal agriculture is the largest consumer of soy protein and a growing industry around the world. Soy is an excellent protein resource and an efficient feed ingredient. Soy application in industrial products continues to grow, and NSRL continues to explore ways to expand the use and knowledge of soy biodiesel.

NSRL is highly involved in processing, utilization and marketing techniques involving soy in meat, dairy, baking and snack applications. NSRL staff work to educate society on the advantages of a soy-enriched diet, and communicate the many health benefits of soy foods.

**International Outreach**

NSRL has sponsored and organized important workshops on issues of wide concern to soybean farmers, processors and scientists, including the Global Soy Forum held in Chicago in 1999, the thirteenth National Agriculture Biotechnology Conference held in 2001, and Soy2002 meetings. NSRL recently led panel discussions on soy foods and human nutrition at the World Soybean Research Conference IX 2013 held in Durban, South Africa.

NSRL works to connect cost-effective and highly nutritious soy protein to the global challenge of hunger and malnutrition. NSRL hosts for both domestic and international participants an annual, intense, hands-on educational short course revolving around soy food use. In addition, NSRL hosts the World Initiative for Soy in Human Health (WISHH) Midwest workshop and provides technical assistance on international ASA WISHH projects. Through partnerships with ISA, ASA, WISHH and USDA, NSRL coordinates programs in Africa, Asia, Latin America and the Caribbean to create soy-based solutions to address the global challenges of malnutrition.

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**Perennial Insect Problems**
- Soybean cyst nematode
- Soybean aphid

**Top Soybean Diseases**
- Sudden death syndrome
- Charcoal rot
- Phytophthora root rot
- Brown stem rot

**Today’s Tough Weeds**
- Waterhemp
- Palmer amaranth
- Horseweed/marestail
- Giant ragweed
- Annual morningglory
- Common lambsquarters
- Foxtail
- Fall panicum
- Volunteer corn
- Velvetleaf
- Winter annual species in reduced/no-till

**Past Weed Problems**
- Velvetleaf
- Fall panicum
- Common cocklebur
- Jimsonweed
- Johnsongrass
- Shattercane
- Yellow nutsedge
- Eastern black nightshade
- Smooth pigweed
- Hemp dogbane
- Smartweed

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Children in India benefit from World Initiative for Soy in Human Health (WISHH) feeding programs. NSRL staff work to educate consumers about the advantages of a soy-enriched diet.
Envisioning the Future.

Embracing the Past,

This USDA flier probably dates to World War II. The flier states, “All free people are in this war together. Each must do his part. One thing American farmers can do to help meet their country’s war need for food, feed and oils is to grow more soybeans for harvest as beans.”

Tofulicious was created as a non-dairy frozen dessert. The soy-based “ice cream” is seen in this Illinois newspaper clipping from the 1980s. Tofulicious began as a checkoff-funded research project funded at the University of Minnesota that eventually was commercialized and supported by soybean farmers.

The United Soybean Board congratulates the Illinois Soybean Association on 100 years of soybean production and 50 years of service working to grow the soybean industry. We thank you for all of your hard work and look forward to helping you reach your goal of using 600 million bushels of Illinois soybeans by 2020.

Thank you for 100 years

Embracing the Past and Envisioning the Future
Early 1900s

• The American Soybean Association (ASA) noted during its 60th anniversary celebration in 1983 that nowhere was there another example of a crop that had advanced in importance as quickly as soybeans in the U.S.
• While several events claim to mark the beginning of soybean history in the U.S., ASA claims the official start could be as early as 1907 when USDA established a soybean research program and appointed William J. Morse to be in charge of soybean research.
• The University of Illinois published its first research bulletin on soybeans in 1897, and planted soybeans at South Farms in 1903.
• J.C. Hackleman, one of the soybean’s early pioneers, traveled thousands of miles throughout Illinois and was instrumental in the soybean’s acceptance by farmers. In 1919, he came to the University of Illinois where he served as an agronomy professor and Extension specialist until his 1956 retirement. He helped organize the Illinois Crop Improvement Association, ASA and the Land of Lincoln Soybean Association.
• William J. Morse began visiting farmers in the South about 1914 to study the feasibility of cottonseed mills to crush soybeans. He wrote and published more than 40 official government bulletins, and brought into the U.S. more than 10,000 samples of soybeans.

1920s

• A.E. Staley opened a soybean processing plant in Decatur, Ill., in 1922 with 1,547 bushels from the Andrews Grain Company. Shippers were paid 99.75 cents per bushel. The following year, Illinois farmers planted 135,000 acres of soybeans.
• Staley hired a train in 1927 for soybean promotion purposes. A six-car Illinois Central train known as the “Soybean Special” traveled nearly 2,500 miles in Illinois and made 105 scheduled stops to educate people about soybeans. Staley worked with USDA, the University of Illinois and Southern Illinois State Normal University (now SIUC). The train had an office car, two cars with exhibits about soybean planting, the cultivation process and end uses, a lecture car and two cars converted into motion picture theaters.
• Early records on 52 of the 64 combines owned in Illinois in the 1920s show five were owned by custom farmers, 10 by tenant farmers and 15 by farmers who owned all of their land. Cooperatively owned combines also were popular in the 1920s.

1930s

• Soybean futures officially began trading at the Chicago Board of Trade in 1936. At the time, surpluses of wheat and cotton made soybeans an attractive cash crop. New processing methods created more acceptable meal and oil products, and demand for edible fats and oils encouraged research on soybean oil for food uses. Soybean meal also proved to be an important ingredient for balancing animal rations.
• That same year, the Northern Regional Research Laboratory in Peoria, Ill., was established to develop industrial uses for soybeans and soy products. Examples included soybean oil-based plastics products, paints and varnishes.
• Dr. Harry Miller, surgeon and medical missionary, used soy to save the lives of babies in China. He set up one of the first modern soy milk plants in the world and delivered milk daily to hundreds of homes. He later established a soy foods business in Ohio.
1940s
- Henry Ford used soybeans to manufacture car components. He displayed the first experimental car body in 1941. Although durable, the car was not practical.
- In 1941, the Northern Regional Research Lab in Peoria, Ill., reported an experiment in which soybean oil was burned in a Caterpillar diesel engine. By the time vegetable oil fuels become economically competitive, it was hoped that research would have solved the technical problems that prevented their safe use at the time.
- The U.S. imported 40 percent of its fats and oils in the 1940s, but supplies were cut off by World War II. As a result, soybean farmers doubled production and processors built plants to process oil. That production turned into surplus at the end of the war.
- The U.S. and United Nations shipped soy flour to Europe and Asia during the same time, although soybeans were not part of government food aid plans.
- ASA launched legislative battles to remove barriers restricting margarine sales. Government efforts to reduce soybean production and restrict exports were opposed. By 1949, the U.S. became a net exporter of oils, proteins and oilseeds.
- ASA leaders traveled at their own expense as technical advisers on government missions to survey potential markets for U.S. soy. Leaders were convinced that Europe and Japan had the know-how and need to use American soybean products in large quantities.

1950s
- The U.S. Food for Peace program made it possible for government and private groups to cooperate in funding market development through USDA’s Foreign Agricultural Service (FAS). In 1956, ASA and FAS signed the first joint market development contracts for work in Europe and Japan, and ASA’s Tokyo office – the first foreign office – opened.

1960s
- Illinois and other states affiliated with ASA began work on state passage of legislation to enable first point of sale deduction of one-half to one cent per bushel. Farmer-elected boards controlled the approved checkoff funds for market development and research.
- Champaign County farmer Lyle Grace noted, “Soybeans were the baby of farming. Everyone was raising them more and more, but we were not doing a very good job with marketing.” Grace and others formed the Land of Lincoln Soybean Association in 1964.

1970s
- By 1974, the Illinois soybean checkoff and Illinois Soybean Program Operating Board (ISPOB) were born. At the time, first chairman Allan Aves, Kirkland, Ill., noted, “We were trying to recover from embargoes under Nixon and Carter. Our crop was vulnerable – based on about six soybean lines – so we wanted to access ancient lines in China.”
- The state had 84,000 soybean farmers in 1974. Income the first year of the checkoff was nearly $400,000 and had grown to nearly $1.4 million by the mid-1980s.
- From 1974 to 1980, 60 percent of checkoff dollars were used to expand markets for soybeans and 30 percent for production and utilization research.
- The University of Illinois Plant Clinic was set up in 1976 to provide Illinois farmers with a central lab for disease diagnosis that was supported by the soybean checkoff.

Memories
The soybean association was very special to Don and still is to me. Don completed a term for another person and then was elected and served two terms himself. We also enjoyed our time working together as volunteers. We were at training to be Bean Boosters in 1987. I can remember because Mary Ellen was just a few months old! All four of our kids enjoyed the trips we took that coordinated with the meetings. Some of our favorite family memories were formed at soybean association meetings, state and national.— Sylvia Bray, Sycamore, Ill.
During the 1970s, Illinois farmers helped market soybeans from Mexico to North Africa. Illinois farmers helped launch international marketing offices, hire university soybean breeders to study varietal improvement and lead research on plant bloom abortion and protein loss in maturing beans. Soon, enhanced varieties were released each year.

By 1979, Illinois soybean farmers were a big part of the financial power behind nine international marketing offices and programs in 76 nations. Illinois production hit 370 million bushels, up from 210 million just nine years before.

### 1980s

- In 1980, Illinois soybean farmers faced the worst crop prospects in 30 years. Soybean cyst nematode infested 426 counties in 22 states. In 1980 alone, the production loss was more than $420 million.
- International work continued. Illinois farmers worked with ASA and others to open doors in China as relations normalized. In Germany, programs persuaded food makers to prominently label products containing soybean oil. Its low saturated fat image emerged and products gained ground on those made with palm, rapeseed and olive oils.
- Illinois soybean volunteers began to educate consumers. In 1985, television programs and national news reports featured their demonstrations. Dozens trained to become “Bean Boosters” and cooking demonstrations and product displays blanketed the state.
- Illinois soybean farmers turned their attention to emerging, non-food markets as researchers announced the development of petroleum inks containing soybean oil. Volunteers educated printers. The Soy Mark logo identified publications printed with soy ink. Growth also occurred in the use of soybean oil as a dust suppressant and in insecticides.
- The Peoria lab helped develop soy ink, and St. Francis Hospital in Peoria, Ill., was the first to use it for baby footprints. Sevim Erhan was the researcher, and her newborn was the first one to have footprints made with the soy ink.
- In 1980, Robert W. Howell, retired head of the University of Illinois Department of Agronomy, said during the past 30 years, “These were exciting years to be working with soybeans, and although we can’t expect such incredible advances in the future, I think there are exciting things to look forward to.” He believed the industry had reached a natural plateau in respect of spectacular yield increases, but expected yields to continue to rise at a steady pace. “Legislation passed in 1970 allows breeders to patent new varieties, and this incentive has led many companies to establish proprietary breeding programs. The farmer will see the results of this work in improved varieties in the near future.”
- Trade became a growing legislative focus. Farmers looked to support a set of programs that let market forces work, while recognizing a limited role for government. ISA helped fight for a drought relief package. Originally, soybean farmers would have received 50 percent of the five-year average price for a disaster payment of $2.39. Instead, farmers received 65 percent of the five-year average price or $5.75.
- Soybean quality was under the spotlight in 1987. From 1972-1984, Brazilian soybeans had an average 20.13 percent oil compared with 19.15 percent for U.S. soybeans. No protein levels were reported. U.S. also had higher foreign matter.
- Illinois soybean farmers supported a checkoff rate increase in 1987 from half a cent to two cents per bushel.
we enjoy today. Biotech crop traits were beginning to be commercialized with the approval, sale and marketing of Roundup Ready soybeans. We spent significant resources to meet, educate and assure domestic and international partners of the benefits and safety of biotech developments. I appreciate the opportunities that leadership in ASA provided. I learned valuable lessons about the industry, working with people and nurturing association policy. I made friends that are still extremely significant in my life and have had a profound effect on me and my family.”

—David Erickson, 1996-97, Altona, Ill.

“The major effort during my term as ASA president was work on the 2002 Farm Bill. The House voted to reduce the loan deficiency payment and remove the floor on how low the rate could go. We told Congress this was unacceptable. We went to the Senate where an agreement was negotiated to leave the floor on the loan deficiency payment and still maintain an acceptable payment rate. ASA also negotiated a direct payment to all U.S. soybean farmers, and the agreement was passed in the final 2002 bill. If the House proposal would have passed, soybean farmers would have lost millions in revenue with a major price drop shortly after passage.

Increasing demand for U.S. soybeans, both domestic and internationally, had major emphasis during my tenure as ASA president. I was appointed by the Secretary of Agriculture to serve on the Agricultural Policy Advisory Committee, where we worked closely on World Trade Organization (WTO) issues, creating a legal playing field around the world for imports of U.S. soybeans. Some of the issues included trade barriers, biotechnology acceptance and the Bio Safety Protocol. It was a very busy year, but extremely gratifying knowing ASA was working to try to increase the profitability of all members and U.S. soybean farmers.”

—Dwain Ford, 2002-03, Kinnmundy, IL

1990s

• Illinois soybean leaders helped draft guidelines for a uniform, national checkoff. The rules reflected the input of 3,100 farmers. The Soybean Promotion and Research Checkoff (SPARC) was implemented in 1991 at one half of one percent of sales.

• The Soy Illinois Conference was launched, offering knowledge on production, marketing and public policy. Soon soybean farmers joined beef, corn, lamb and wool producers for Illinois’ first multi-commodity conference, now the Illinois Commodity Conference.

• New soybean uses accelerated. Ringier America printed Illinois Soybean Farmer magazine with 100 percent soybean oil-based ink. In checkoff-sponsored competitions, university students created “Harvest Lights” candles from soybean oil and soybean oil-based crayons. In 1993, eight Illinois transit systems tested a 20-percent biodiesel blend.

• In 1993, the Land of Lincoln Soybean Association became the Illinois Soybean Association (ISA). ISA leaders met with Illinois Environmental Protection Agency (EPA) officials to support biodiesel, defended trade agreements, succeeded in raising the soybean loan origination fee and helped craft the Freedom to Farm Act.

• Creation of the National Soybean Research Laboratory (NSRL) signaled a heightened emphasis on production research. ISA lobbying efforts yielded nearly $6 million in funds for the facility. Illinois led the formation of multi-state farmer consortiums to guide research, and ISA helped form the Illinois Council for Food and Ag Research.

• The Food and Drug Administration (FDA) approved a new soy health claim based on research funded by Illinois farmers. The final rule stated that soy protein included in a diet low in saturated fat and cholesterol may reduce the risk of coronary heart disease by lowering blood cholesterol levels. Food labels may now contain that message.

• Legislative biodiesel efforts gathered steam at the state and federal levels, including adding biodiesel to energy policy, including in farm bill legislation, creating tax incentives and more. Biodiesel research and development was a top priority.

2000s

• Commercial agricultural sales resumed to Cuba. After more than 40 years, and a great deal of legislative effort to reform economic sanctions on food and medicine, U.S. soy products once again shipped to Cuba under a special one-year license. Cuba purchased 12,000 tons of soybeans, 20,000 tons of soybean meal and 5,000 tons of soyoil. The market today is one ISA continues to monitor and look for ways to increase sales.

• The World Initiative for Soy in Human Health (WISHH) program was announced. The program is designed to promote the use of soy products in food aid programs worldwide and create growth for soy markets without disrupting commercial sales.

• Legislation to build new and maintain locks and dams was introduced and continues to be pursued at the federal level. About 75 percent of U.S. soybean exports are shipped down the Mississippi River to customers worldwide.

• Biodiesel remained a primary focus. Passage of the biodiesel tax incentive and Biodiesel Performance Trials successfully led dozens of Illinois soybean farmers to try the fuel for the first time. Biodiesel became the first alternative fuel to successfully complete the Environmental Protection Agency’s (EPA) Health Effects testing under the Clean Air Act. Illinois in 2003 approved biodiesel tax and biodiesel plant construction incentives.
2010s

- The primary consumer of Illinois soybeans, the animal agriculture industry, began increasingly facing governmental and environmental challenges. Animal agriculture became a top funding focus for Illinois soybean farmers.
- The U.S. infrastructure system, after decades of use, is in dire need for repair, while the global infrastructure system is quickly being developed by international and U.S. taxpayer funds. The U.S. soybean production industry is at a distinct disadvantage. Illinois farmers began a coordinated effort to find ways to enhance the infrastructure.
- Soybean research once led by the land grant university system has been replaced by global private sector research and development. Challenges facing Illinois soybean production are dramatically increasing. The need for new markets and global expansion has positioned many multinational grain, technology and equipment companies where they need to develop new opportunities overseas.
- In 2012, ISA became the umbrella brand representing Illinois Soybean Growers (membership) and the Illinois Soybean Board (checkoff).
- Profitability and long-term economic and environmental sustainability mean focusing on farmers and the value chain. Addressing specific target areas positions Illinois soybean farmers as leaders in the global marketplace. ISA is focused on its vision, mission, values and goal to rebuild and maintain competitiveness for Illinois soybean farmers.

Sources: Illinois Crop Improvement Association, Soybean Pioneers, Soy Info Center

Memories

My dad started beans with a small plot of 10 acres in 1945. A neighbor combined them as we did not have a combine. Back in the 1930s, the U of I said that beans made very high protein hay. I remember my uncle cutting beans and putting them in the haymow for hay.

In the late 1990s, my wife and a friend did a program at the AFBF annual meeting in Nashville on the many uses of soybeans. They had a very large list of many uses of soybeans. Our farm has grown many seed beans for many years for two different seed companies. — Russell Stewart, Monmouth, Ill., charter member, Land of Lincoln Soybean Association

Help support growth within the Illinois livestock industry.
Join the IBA today!

www.illinoisbeef.com

Congratulations from the Illinois Beef Association on 50 years!
From Chinese Legend to Feeding the World
Soybean Production has a Storied Past and Future

International Beginnings
- Historical records show references to soybeans as early as 5,000 years ago. Chinese legend believes a band of traveling merchants in the country first discovered the nutritious benefits of wild soybeans.
- During 2838 B.C., then Chinese emperor Sheng-Nung wrote the first record of soybean cultivation, Materia Medica, where soybean medicinal qualities were outlined. Certain soybean substances were reportedly used to treat wounds and reduce swelling.
- Soybeans were first cultivated in northern China before spreading to Japan, Korea and the rest of Southeast Asia.
- German botanist Englebert Kaempfer introduced soybeans in Europe in 1712. Swedish botanist Carl von Linne later scientifically named them Glycine max for the large, nitrogen-producing root nodules. Poor climate and soil limited European production.

U.S. Experimentation
- In 1896, U.S. botanist and chemist George Washington Carver at Tuskegee Institute in Alabama began experimenting with soybeans. He eventually developed more than 300 soybean byproducts, including oils and food substitutes.
- Early soybeans presented challenges. Scientists at the time noted gold, green, black, brown and mottled seeds grew on plants ranging from ground-hugging vines to leggy stalks. Plants were difficult to harvest and pods shattered easily.
- Seed was first approved for certification in Illinois in 1921. Varieties included Illinois 13-19, Mongol, Hollybrook, Peking and Sable. Manchu soybeans were introduced in 1922 when 50 bushels were purchased by several soybean farmers in Champaign County.
- The first 20 years of soybean agronomic research in Illinois consisted of testing available varieties for adaptation, performance on various soils, fertility treatments, nodulation and nitrogen fixation. Active selection of improved varieties from within old varieties produced Ilsoy in 1913 and Illini in 1920. Chief and Manchu followed later.

Rapid Progress
- A soybean production contest was instigated by J.C. Hackleman in 1941 through the Illinois Crop Improvement

<table>
<thead>
<tr>
<th>Year</th>
<th>Acres planted for all purposes (millions)</th>
<th>Acres harvested for grain (millions)</th>
<th>Yield per harvested acre</th>
<th>Production (million bushels)</th>
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<td>1950</td>
<td>NA</td>
<td>3.989</td>
<td>24.0</td>
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<td>1960</td>
<td>5.013</td>
<td>4.973</td>
<td>26.0</td>
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<td>1970</td>
<td>6.848</td>
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<td>31.0</td>
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<td>1980</td>
<td>9.400</td>
<td>9.350</td>
<td>33.5</td>
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<td>1990</td>
<td>9.200</td>
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<td>39.0</td>
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<td>2000</td>
<td>10.500</td>
<td>10.450</td>
<td>44.0</td>
<td>459.800</td>
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<tr>
<td>2010</td>
<td>9.100</td>
<td>9.050</td>
<td>51.5</td>
<td>466.075</td>
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USDA notes large-scale soybean production did not begin until the 20th century. Increased planting flexibility, steadily rising yield improvements from narrow-rowed seeding practices, a greater number of 50-50 corn-soybean rotations, and low production costs favored rapid production expansion during the last century.
Improved genetics have increased soybean yield potential over the years, according to Brian Diers, University of Illinois soybean breeder. In fact, he says soybean yields have consistently increased by approximately one-third of a bushel per acre per year.

Besides better yields, Diers says new varieties have other advantages, including:

1. Later maturity. Modern varieties within each maturity group mature about a week later than they did in the 1950s and 1960s, contributing to increased yield.

2. Better protein and oil content. Protein production on a per-seed basis has nearly doubled since the 1920s, and oil production has more than doubled since the 1920s.

3. Higher highs and higher lows. New varieties yield better than their predecessors in both high-yield and low-yield environments.

“New varieties have greater yield, later maturity, shorter vegetative period and longer reproductive and seed-fill period, less protein concentration and higher oil concentration, greater disease resistance and greater total biomass production and harvest index,” says Diers. “The concentration of protein in the seed has decreased. For oil, both the concentration and production on a per seed basis has increased.”

Diers says newer varieties take greater advantage of early planting than older varieties. “The majority of soybean yield advances are the results of improved genetics,” he says.
Illinois Soybean Farmers Plant Biotech Varieties on More Acres

(percent of acres planted to biotech soybeans)

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<td></td>
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<td>89%</td>
<td>92%</td>
<td>90%</td>
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</tbody>
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Source: USDA

compañies, rather than holding seed back from the previous year for planting.

- Cecil Nickell became a soybean plant breeder at the University of Illinois in 1979. He initially was sponsored by the Illinois Soybean Program Operating Board, ICIA and Illinois Foundation Seed with a focus on soybean cyst nematode research.

- Soybean evaluation crop tours were sponsored by LOLSA and other commodity groups in the late 1970s and early 1980s. The tours were made up of seedsmen, farmers, grain elevator operators, university and Extension agronomists, ag chemical representatives and others. Data obtained from the tours was said to be valuable to participants.

Biotechnology Revolution

- Biotech soybeans were first introduced in 1996 by Monsanto. Glyphosate-tolerant soybeans – called Roundup Ready soybeans – were the first commercialized trait.

- In 1997, about eight percent of all U.S. soybeans produced were biotech varieties. By 2010, that figure had risen to 93 percent. While U.S. farmers embraced the biotech revolution, importers in countries in the European Union and other areas were hesitant to allow biotech soybeans into their market channels.

- The European Commission issued rules in 2001 requiring the labeling of foods and animal feed from biotech beans. At the time, 108.9 million acres of biotech crops, including glyphosate-tolerant soybeans, were planted in 13 countries.


- American scientists in 2010 sequenced the soybean genome. More soybean traits are in production and development, including traits with tolerance to other herbicides, traits that produce healthier oil profiles for consumer use and second-generation glyphosate traits.

Sources: Illinois Crop Improvement Association, Soybean Pioneers, Soy Info Center

Archer Daniels Midland Company joins in celebrating the 50th anniversary of the Illinois Soybean Association and 100 years of soybean production in Illinois.

Thank you, ISA, for your service!

www.adm.com
Soybean Processing Takes Hold in the ’20s

“It is strange that the western world was so slow to realize the possibilities of the soybean, which has been a mainstay of the Chinese diet since time immemorial and has a recorded history dating back nearly 5,000 years... until nearly 1900 they were grown only as a curiosity in botanical gardens or at agricultural experiment stations...” – Source: Archer Daniels Midland

While soybeans may have first been grown in the U.S. as a curiosity, entrepreneurs of the early 1900s recognized what the potential of soybeans might be in Illinois. “It took a long time for farmers to become aware of the value of the plant not only as silage but also because of its soil-building properties as green manure. The nutritional value of the bean was not stressed, but in 1915 enough soybeans were harvested that a cottonseed oil mill was able to use its presses on soybeans. The experiment was the first attempt to crush domestic beans,” states ADM history. “The fact the first processor could obtain only enough soybeans to make four tank cars of oil in 1920 did not deter a second firm from entering the business in 1922.”

A.E. Staley, who was interested in the corn starch market, bought a defunct corn processing plant in Decatur, Ill., during the decade. The book, Soybean Pioneers, reports, “World War I wiped out their (Staley’s) export business and then later they began making corn syrup and exploring soybeans. There was no place at that time where farmers could sell soybeans...”

Staley began to promote to farmers in Illinois that soybeans were a good option for adding nitrogen to the soil. He announced the company would start processing soybeans in 1922. He had salesmen meet with Illinois farmers in gyms, courthouses and on farms, offering contracts guaranteeing Staley would buy all the soybeans farmers grew.

Farmers responded to the interest from processors. By 1929, U.S. soybean production was nine million bushels. By 1939, production had risen to 91 million bushels.

“Most novel was a train called the Soil
and Soybean Special which traveled the Bean Belt. The Illinois Central Railroad made more than 100 scheduled stops over about a two and a half week period,” notes author Leo Windish in Soybean Pioneers. Nearly 34,000 people passed through the train. “...It soon became apparent better progress could be made if the seed and processing business could be combined so that a market could be extended to all classes of soybeans. The soybeans then might either be processed or sold for seed. Eugene D. Funk and head of Funk Seed Company in Bloomington added soybean processing to his business line in 1924...”

ADM began processing soybeans in 1929. Soybean oil was considered an inferior product at the time, used as an adulterant or a substitute drying oil replacing linseed in the paint industry. The first large-scale use of soybean oil for edible purposes was by margarine makers in 1930.

For nearly 100 years, there was little or no change in the method of extracting oil from seeds. Large crushers used a hydraulic press patented about 1850. An improved expeller came on the market in 1935. Solvent extraction, the next step in the evolution, began in 1939.

As demand for soybean oil rose, weak demand for the soybean meal also produced during processing weighed heavily on the processing industry. Once the value of meal as livestock feed became evident in the mid-1930s, soybean production climbed higher. The Soy Info Center reports about two million bushels of U.S.

The composition of soybeans is one of the economic drivers for the processing industry. Here, a soybean protein testing device is evaluated in 1970.

Key Processor Dates

1930: The National Soybean Oil Manufacturers Association was created.
1932: The association supported the American Soybean Association and appealed to processors to “make a contribution of $5 or $10 or less to help meet the deficit incurred by our sister association on account of bank failures.”
1936: The National Soybean Processors Association was officially adopted as the group’s name.
1961: NSPA began its weekly statistical reporting service.
1989: NSPA changed its name to National Oilseed Processors Association (NOPA). NOPA now represents crushers of soybeans, canola, flaxseed, safflower seed and sunflower seed. NOPA represents 13 regular member firms engaged in actual processing and eight associate member firms that use oil or meal, including refiners and feed manufacturers.

Illinois soybeans are processed not only into meal and oil, but also biodiesel at plants like the Incobrasa’s in Gilman, Ill. Illinois is one of the largest biodiesel producing states.
soybeans were exported to Europe for the first time.

After the mid-1950s, exports of soybean oil and meal increased dramatically and the Soy Info Center notes the U.S. became the world's top supplier. In 1966, soybean oil passed butter to become the world's leading edible oil. Between 1960 and 1982, world production of soybean oil rose to where soybean oil accounted for about 44 percent of the world's edible vegetable oils.

Also in the early 1980s, the Soy Info Center says soybean meal supplied two-thirds of the protein from the world's oilseed protein meals. Chicken consumption among the middle and upper classes in developing countries during the 1970s contributed significantly to the demand. At the same time, Brazil had emerged as a major soybean crusher, threatening to take over the top world supplier position from the U.S. By 1982, Brazil was crushing half the U.S. volume.

The number of U.S. soybean crushing plants increased from less than 10 in 1930 to about 65 in 1939. A major factor stimulating expansion of the crushing industry was the need to get plants operating at a higher percentage of total capacity to make operations profitable.

After the early 1950s, the number of soybean crushing plants began to drop sharply, as larger, more economical solvent plants were constructed and many old expeller plants were retired. The total number crushing predominantly soybeans decreased from 193 in 1951 to only 94 in 1979, while the average yearly capacity increased from 1.6 million bushels in 1951 to 14.4 million bushels in 1979. During this period, the total amount of soybeans crushed increased rapidly, rising an average of 7.9 percent during the 1950s and 6.5 percent yearly during the 1960s.

Soya Bluebook estimates during the 1970s, U.S. plants operated roughly 355 days a year at an average of 76 percent of capacity. But as South American farmers planted more soybeans, the crushing industry began to change. By 2002, South America became the dominant producer.

In the mid-1990s, technological advances in biodiesel production contributed to a boost in the demand for domestic soybean oil. But a rapid rise in Chinese crushing capacity has led to a shift in international soybean trade during the last decade and affected the U.S. processing future.
In 1949, soybeans for hay were four feet tall, tough to mow and kind of like wood. Cows didn’t like them, either. I cut my first soybeans with a three-foot Case combine and went to a five-foot Allis Chalmers with a draper that kept stopping when dirt got at the bottom rollers. I went to a seven-foot Massey and pulled a wagon alongside. When the hopper was about full, we turned on the unloader, but did not stop. Then we went to a self-propelled combine with no cab. Sometimes you’d wake up in the morning with both eyes stuck shut. We went through two 410 Masseys with cabs and header controls and then a 1680 IH which was a great machine, and then to a 2166 Case IH. Auto header controls sure made cutting beans a snap and I had clear eyes in the morning. I am 77 and have run combines every year since I was 16 but one year.

—Ken Vancil, Bushnell, Ill.

This is a story of the resilience of the soybean plant that took place in the early 1970s. We farm some sandy soils near the Wabash River that are quite prone to drought. We had planted a small field of beans with a wheat drill. By the latter part of July, we were getting our usual dry weather. The beans were about knee high and were blooming and setting pods. The hot, dry weather continued until some of the soybean plants were dying. We finally did receive some rain, although I can’t remember how much. The beans that survived, recovered, and when we harvested them that fall they were some of the best beans that we had raised up until that time.

—Kenneth Macke, West Union, Ill.

Illinois soybean farmers have a long history of hosting international trade teams on their farms as well. Here, a group of Japanese buyers visit the Dick Haas Farm near LeRoy, Ill., in 1976. An average of 15 teams visit Illinois farms every year.

Illinois farmers have visited customer countries on trade and humanitarian assistance missions since the association was formed. C.W. Gaffner, Greenville, Ill., (left) and Pat Dumoulin, Hampshire, Ill., (right) took part in a National Soybean Research Laboratory (NSRL) World Initiative for Soy in Human Health (WISHH) mission trip earlier this century.

Embracing the Past, Envisioning the Future.

Illinois Farmers Exchange Ideas Worldwide

Memories

Envisioning the Future.

Embracing the Past,
Memories

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Memories

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—Ken Vancil, Bushnell, Ill.
Lots of Soybean Uses Develop During Last Century

Whole Soybean Products – Food Uses
Baked soybeans
Full fat flour:
  - Bread
  - Candy
  - Doughnut mix
  - Frozen desserts
  - Instant milk drinks
  - Low-cost gruels
  - Pancake flour
  - Pan grease extender
  - Pie crust
  - Sweet goods
Seed
Soy sprouts
Stock feeds
Roaster soybeans:
  - Candy ingredients
  - Confection
  - Cookie ingredient
  - Cookie topping
  - Cracker ingredient
  - Dietary items
  - Fountain topping
  - Soy coffee
  - Soy nut butter
  - Soy coffee
  - Soy nuts
Traditional soyfoods:
  - Miso
  - Natto
  - Soymilk
  - Soy sauce
  - Tempeh
  - Tofu
Whole green soybean

Soybean Oil Products – Food Uses
  - Fatty acids
  - Glycerol
  - Refined soybean oil (see list of products)
  - Soybean lecithin (see list of products)
  - Sterols
  - Refined Soybean Oil Products – Industrial Uses
    - Anti-corrosive agents
    - Anti-static agents
    - Caulking compounds
    - Core oils
    - Diesel fuel
    - Disinfectants
    - Dust control agent
    - Electrical insulation
    - Epoxies
    - Fungicides
    - Herbicides
    - Inks, printing
    - Insecticides
    - Linoleum backing
    - Metal, casting/working
    - Oiled fabrics
    - Paints
    - Pesticides
    - Plasticizers
    - Protective coatings
    - Putty
    - Soaps/shampoo/detergents
    - Vinyl plastics
    - Waterproof cement
    - Wallboard
  - Soybean Oil – Lecithin Products – Industrial Uses
    - Anti-foaming agents:
      - Alcohol manufacture
      - Anti-spattering agent: Margarine
      - Dispersing agents:
        - Ink manufacture
        - Insecticides
        - Paint manufacture
        - Pigments (paint)
        - Rubber
        - Yeast manufacture
    - Calf milk - replacers
    - Cosmetics
    - Wetting agents

Soybean Meal Products – Food Uses
  - Grits, soy flour, concentrates and isolates:
    - Alimentary pastes
    - Baby food
    - Bakery ingredient
    - Beer and ale
    - Candy products
    - Cereals
    - Confections
    - Diet food products
    - Food drinks
    - Grits
    - Hypo-allergenic milk
    - Meat analogs
    - Meat products
    - Noodles
    - Prepared mixes
    - Sausage casings
    - Special diet foods
    - Yeast

Soybean Meal Products – Animal Feed Uses
  - Aquaculture
  - Bee foods
  - Calf milk replacers
  - Fish food
  - Fox and mink feeds
  - Pet foods
  - Poultry feeds
  - Protein concentrates
  - Swine feeds

Soybean Flour and Isolate Products – Industrial Uses
  - Adhesive
  - Analytical reagents
  - Antibiotics
  - Asphalt emulsions
  - Binders, wood/resin
  - Cleansing materials
  - Cosmetics
  - Fermentation aids/nutrients
  - Films for packaging
  - Fungicides
  - Inks
  - Insecticidal sprays
  - Leather substitutes
  - Linoleum backing
  - Livestock feeds
  - Paints, water-based
  - Particle board
  - Pesticides
  - Plastics
  - Plywood
  - Polysters
  - Pharmaceuticals
  - Tape joint cements
  - Textiles
  - Texture paints
  - Wallboard

Soybean Hulls
  - Dairy feed
  - Filter material
  - High fiber breads

Happy 50th Anniversary
Illinois Soybean Association!
In the 1970s, one of my jobs was working as a foreign corn breeder in South America. One day while working in Brazil, the workers came upon a different plant. They asked me what the plant was, and I told them a soybean plant. Sometime later they came to know it very well when they began planting many acres of this “mystery plant.” This year, Brazil produced more soybeans than the United States. —Dr. Donald E. Dahlstrom, Woodhull, Ill.

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
  StollerUSA
  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

*In 1920, the American Soybean Association came here to represent soybean farmers. We’re still on the job.*

*Thank you to the Illinois Soybean Association for 50 years of partnership with ASA.*

If you believe, belong.
Envisioning the Future, Embracing the Past,

This article from a 2003 issue of the Illinois Soybean Review shares much of the history of the biodiesel success story. Illinois soybean farmer support was instrumental to the research, growth and development of the alternative fuel market.

1900: Pouring a bottle of vegetable oil in your truck or tractor’s fuel tank may not seem like a clean-burning fuel alternative. But that’s exactly how the introduction of soy biodiesel began. In 1900, Dr. Rudolf Diesel demonstrated his new engine, using vegetable oil as its source of fuel at the Paris Exhibition. It would take nearly another century before biodiesel (soybean oil that has been converted to a fuel) would make its presence known, thanks to soybean checkoff dollars. Through continuous investments of checkoff dollars in ongoing research, testing, and promotions and by farmer word of mouth, soy biodiesel has become a successful, clean-burning alternative fuel.

1990: The University of Missouri and the Missouri Soybean Merchandising Council funded a study to demonstrate the use of soy-based mono-allyl esters as a diesel fuel replacement in 1990. The wheels started turning – and haven’t stopped.

1992: The National Soy Diesel Development Board was founded to coordinate state and national biodiesel development efforts and begin long-term technical and regulatory biodiesel programs. The name was changed to the National Biodiesel Board (NBB) in 1994 to broaden industry support.

1993: Soy biodiesel began fueling snow trucks, as well as other heavy-duty machinery and equipment as part of a biodiesel pilot demonstration. Dozens of demonstrations were held, including at Lambert International Airport in St. Louis, the New Jersey Highway Department and the U.S. Postal Service. Also in 1993, Cedar Rapids, Iowa says “yes” to soy biodiesel. Bill Hoekstra, transportation and parking director for Five Seasons Transportation and Parking, a division of the city of Cedar Rapids, says they have used a biodiesel blend in their fleet of 50 buses, 20 paratransit vehicles, and five right buses for a total of nearly six years. They currently enjoy the many benefits of soy biodiesel.

by Kelly Moscher

INVESTING CHECKOFF DOLLARS

PAST TO PRESENT

THE HISTORY OF SOY BIODIESEL
“It allows us to go longer between oil changes and tune ups, and since it’s a cleaner fuel, it’s cut back on the amount of maintenance we have to do,” Hoekstra says.

Born and raised in a farming community, he understands the need to use value-added ag products. “We believe it’s important to use soy biodiesel, because Iowa is still very much an agricultural state,” Hoekstra continues. “We want all sectors of the Iowa economy to do well. We’re setting a standard, and we hope other companies will follow suit. I believe using soy biodiesel is the right thing to do.”

1994 A 24-foot Zodiac boat completes a daring around-the-world journey powered by 100 percent soy biodiesel.

1998 President Clinton signs Executive Order 13101, giving preference to bio-based products for federal government use. Also signs Executive Order 13134, calling for the expanded use of bio-based fuels such as biodiesel, and 13149, to increase the government’s targets for displacing petroleum.

In November, Congress approves biodiesel use for compliance with the Energy Policy Act of 1992 (EPAct). This act was very significant for the soy biodiesel industry as it established high-profit biodiesel users, which in turn increased credibility.

2000 Representatives of the U.S. Congress announced biodiesel as the first and only alternative fuel to have successfully completed the Tier I and Tier II Health Effects testing requirements of the Clean Air Act Amendments of 1990. This testing set biodiesel apart from other alternative fuels.

Tests results concluded that biodiesel is non-toxic, biodegradable and poses no threat to human health. The data serves to demonstrate the significant benefits of biodiesel to the environment and to public health. These results will lead to increased consumer confidence, increased use of biodiesel and greater demand for U.S. soybeans.

2002 The American Society for Testing and Materials (ASTM), a premier standard-setting organization in the U.S., issued a fuel specification for soy biodiesel. Specification D-6751 was issued for all biodiesel fuel bought in the U.S., marking a major milestone for the biodiesel industry. Having a standard in place helps protect consumers from poor products and reduces the cost of buying and selling biodiesel.

There are now more than 200 major fleets and thousands of farmers running on biodiesel across the U.S. and in foreign countries.

As a result, using soy biodiesel will not void the parts and workmanship warranties of major engine manufacturers, including Caterpillar, Cummins, Detroit Diesel, International and John Deere. The National Biodiesel Board is currently working to ensure that the entire diesel equipment industry will reference biodiesel in their owner’s manuals.

Also in 2002, groundbreaking legislation became law in Minnesota. The state will require the inclusion of 2 percent biodiesel (B2) into the majority of Minnesota’s diesel market. It will go into effect no later than June 30, 2005. It could be implemented earlier if a biodiesel production plant with right

2003 Soy biodiesel is available for on-farm delivery in hundreds of locations across Iowa and Illinois.

Some of the Many Fleets Using Soy Biodiesel:
- Baltimore Gas & Electric
- Bi-State Development Agency
- Breckinridge, Colorado
- Cincinnati Metro
- City of St. Louis
- City of Taipei, Taiwan
- City of Long Beach
- Florida Power and Light
- Georgia Power
- Iowa Dept. of Transportation
- Maxi Scuba Tours
- Nevada State Energy Offices
- New Jersey Dept. of Transportation
- Northwest Missouri State University
- Pacific Whale Foundation
- Scott Air Force Base, Belleville, IL
- USDA- Agriculture Research Service
- USDA- Forest Service, Wyoming
- United States Postal Service

Funded by checkoff dollars
### LOLSA President History

**Land of Lincoln Soybean Association/ Illinois Soybean Association 1964-2005**

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<thead>
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<td>C.E. Bowen</td>
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### LOLSA Directors 1964-1968

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### LOLSA Directors 1969-1975

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<tr>
<td>Ex-Officio Member</td>
<td>J.C. Hackleman</td>
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### Illinois Farm Bureau Representatives History

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<td>J.C. Pool</td>
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<td>J.C. Pool</td>
<td>1996-2013</td>
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<td>Randy Poskin</td>
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**Embracing the Past, Envisioning the Future.**
For the past 55 years, I have been planting and harvesting soybeans. The methods of planting, cultivating and harvesting soybeans have changed much over these years. We used to plow, disc, harrow (sometimes two different directions) and often cultipack before planting. Now, most of the time, we spray the minimum amount and no-till plant.

In the early years of farming we often cut soybeans for hay. That was a very dusty and itchy job. We haven’t done that for many years. We also used to apply a band of granular weed chemical in the row to help control weeds and this was followed by one or two passes with a tractor and cultivator to continue the weed control.

Weed control is always key and in the early years we often used all family members with hoes and weed hooks to walk the rows of beans to remove weeds manually. Now with careful use of weed chemicals, there is much better control of unwanted weeds. Yields have consistently improved over the years. Yields now run almost double early ones, from 30 to 80 bushels per acre. Prices in those early years ran from $2-$3 per bushel and now can average $12 or more. At the same time, cost of inputs has increased greatly.

Harvesting was done with our Allis Chalmers pull-type combine with a five-foot head which took two rows of beans at a time. Now our 25-foot header takes many rows and travels through the field at a much higher speed.

Most of the soybeans produced in the early years of my farming were used domestically because there was much more animal production which used the soybean meal for food. Now there is less local animal production and the major portion of soybean production is exported, much to China.

One last observation of the difference 50 or more years can make is the difference in land prices. The first land we purchased was about $300 per acre. Now land in our area is selling for $12,000 per acre. One wonders if this is a land bubble ready to burst or if it will keep growing. One issue, more food is needed for the expected growth in world population, so more land is needed, or better production methods. The next 20 or so years will be very interesting. —C.W. Gaffner, Greenville, Ill.

Memories

Photo submitted by C.W. Gaffner
LOLSA Directors 1976-2005 (continued)

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At-Large Directors

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<tr>
<td>Jim Holstine</td>
<td>2004-2005</td>
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From 1964-1968 there were no formal “districts/regions” for the selection of board members. In 1969 districts were set up. From 1969-1975 the districts were East, East Southeast, Southeast, Southwest, West Southwest, West, Northwest, Northeast, Central and an Illinois Agriculture Association (IAA)/at-large director. From 1976-2005 the districts were numbered 1-18 with an at-large director. In 1976 when the new districts were put into place the initial board members were assigned different term lengths, in order to keep continuity in leadership. The initial terms were as follows:

1 year terms – Districts 1, 4, 7, 10, 13, 16
2 year terms – Districts 2, 5, 8, 11, 14, 17
3 year terms – Districts 3, 6, 9, 12, 15, 18

When the initial terms expired a newly elected director could serve 3 – 3 year terms. A director who has served the max number of terms (3 – 3 year terms) shall not be eligible for re-election for at least one year. The at-large director was selected by IAA and was a member of their board. The at-large director served a 1 year term and was elected every year. There were no term limits on the number of terms the at-large director could serve until 1989. Starting in 1989 the max number of terms an at-large director could serve was 3 – 3 year terms.

Mom’s Diary: Oct. 1, 1943: “Combining beans. Lincoln beans yielded 35-40 bu./acre. Sold for $1.84/bu. Due to large growth, most all beans lodged and were hard to cut. We have to top off weeds in many fields and then come back and cut beans. All drilled soybeans were considered a cash crop, so used them as such, selling them straight out of the field. Also experienced combining shocked black beans in the field. What a job that was. Beans we sold first crop for 70 cents/bu. I thought that was great! We used a 12-foot header with spike tooth cylinder on an International combine. Many muddy fields were combined with two Oliver 70 tractors pulling it. We fixed many canvases in the header. Avery was a very good combine also. When my father bought a new combine, the dealer would send two members out to our house to assemble the combine. It took several days.” — Earl Sorrells, Raymond, Ill.
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<td>Bernad Cotter</td>
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<td>Sharon Covert</td>
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<td>Gregg Hainline</td>
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<td>Bryan Hieser</td>
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<td>Lloyd Wilken</td>
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<td>Dennis Wentworth</td>
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<td>Terry Pille</td>
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<td>Leo Miller</td>
<td>1989-1995</td>
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<td>James (Wally) Denzer</td>
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<td>7</td>
<td>Lloyd Puzy</td>
<td>1974-1981</td>
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<td>Vernon Roehschein</td>
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<td>Lloyd Anderson</td>
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<td>Alan Puzy</td>
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<td></td>
<td>Dean Lemenager</td>
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<tr>
<td></td>
<td>Mike Cunningham</td>
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<td>Larry Lewis</td>
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<td>Russel Shriver</td>
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<td>George Dixon</td>
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<td>Paul Stout</td>
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<td>Tom Johnson</td>
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<td>Joe Aggerett</td>
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<td>Victor Peteffish</td>
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<td>Ed Mies</td>
<td>2002-2005</td>
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<td>10</td>
<td>Stanford England</td>
<td>1974-1982</td>
</tr>
<tr>
<td></td>
<td>Norman Jordan</td>
<td>1982-1988</td>
</tr>
</tbody>
</table>

United Soybean Board Chairmen from Illinois History

- Alan Puzy, 1994
- Richard Borgsmiller, 2002
- Phil Bradshaw, 2010
Chief Executive Officer History

Land of Lincoln Soybean Association/ Illinois Soybean Association  
1964 - 2005  
Illinois Soybean Program Operating Board  
1974 - 2005  
Illinois Soybean Board and Illinois Soybean Growers  
2012 - Present

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
<th>Years Served</th>
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<tbody>
<tr>
<td>2010 - Present</td>
<td>Craig Ratajczyk</td>
<td>W. Lyle Roberts Jr. Hopedale</td>
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</tbody>
</table>

Chairman History

Illinois Soybean Program Operating Board/ Illinois Soybean Association  
2005 – 2012  
Illinois Soybean Program Operating Board  
2005 – 2012  
Illinois Soybean Board and Illinois Soybean Growers  
2012 – Present

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
<th>Years Served</th>
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<tr>
<td>2011-2012</td>
<td>Matt Hughes Shirley</td>
<td>2013-2014 Bill Raben Ridgway</td>
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<tr>
<td>2012 - 2013</td>
<td>Bill Wykes Yorkville</td>
<td>2012 - 2013 Bill Wykes Yorkville</td>
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Combined Board Of Directors

<table>
<thead>
<tr>
<th>District</th>
<th>Name</th>
<th>Years Served</th>
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<tbody>
<tr>
<td>1</td>
<td>Karl Lawfer Bob Colwell Paul Rasmussen</td>
<td>2006-2011 2011 2012</td>
</tr>
<tr>
<td>2</td>
<td>William Dumoulin Pat Dumoulin Duane Dahlman</td>
<td>2006 2006-2012 2012</td>
</tr>
<tr>
<td>4</td>
<td>William Wykes Sharon Covert</td>
<td>2006 2013</td>
</tr>
<tr>
<td>5</td>
<td>Bryan Hieser Dan Farney</td>
<td>2006-2008 2008</td>
</tr>
<tr>
<td>7</td>
<td>Mike Cunningham Mike Marron</td>
<td>2006-2011 2011</td>
</tr>
<tr>
<td>9</td>
<td>Ed Mies Tim Seifert</td>
<td>2006-2011 2011</td>
</tr>
<tr>
<td>10</td>
<td>Dale Crawford Jered Hooker</td>
<td>2006 -2012 2012</td>
</tr>
<tr>
<td>12</td>
<td>Philip Bradshaw Mark Sprague</td>
<td>2006-2008 2008</td>
</tr>
<tr>
<td>14</td>
<td>David Hartke Don Guinnip</td>
<td>2006-2009 2009</td>
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<tr>
<td>17</td>
<td>Carol Meyer Dean Campbell David Droste</td>
<td>2006 2006-2012 2012</td>
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</table>

At-Large Directors

<table>
<thead>
<tr>
<th>District</th>
<th>Name</th>
<th>Years Served</th>
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<tbody>
<tr>
<td>1</td>
<td>Ron Kindred Jeff Lynn</td>
<td>2006-2013 2013</td>
</tr>
<tr>
<td>2</td>
<td>Ross Prough Lynn Rohrscheib</td>
<td>2006-2013 2013</td>
</tr>
<tr>
<td>3</td>
<td>Ron Moore</td>
<td>2006</td>
</tr>
<tr>
<td>4</td>
<td>Joe Murphy</td>
<td>2006</td>
</tr>
<tr>
<td>6</td>
<td>Matt Hughes John Hagenbush</td>
<td>2006-2012 2012</td>
</tr>
</tbody>
</table>

The Illinois Princess Soya contest was held from June 1968 – February 1978. The first crowning of the princess was held in connection with the Agronomy Day at the University of Illinois. This 1973 photo submitted by Illinois Farm Bureau shows one of the crowning events. The competition was sponsored by the Land of Lincoln Soybean Association, and winners then competed in the National Princess Soya competition held in conjunction with the ASA annual meeting.
How Many Equipment Gamechangers do you Know?

Soybean machinery has undergone a number of changes during the last nearly 100 years to improve the efficiency of labor and time and help increase harvested yields. See if you can identify the equipment shown below or guess the year or decade each was used.
1. With the 999 planter so equipped, it can plant corn, distribute fertilizer and plant peas or beans at the same time—1929.

2. This is an early horse-drawn soybean harvester, date of photo unknown.

3. Deere planter and fertilizer spreader designed for bean planting—1935.

4. The Case 120 was one of the first self-propelled combines during the 1950s.

5. The Case 65 tractor-drawn combine from the 1950s.

6. The John Deere 74-76 beet and bean planter being pulled by a 520 tractor featured four rows of planting, adjustable fertilizer placement and a wide range of seed application beyond just beans and beets—1957.

7. The John Deere 95 self-propelled combine had a 40-inch feeder, a 40- by 22-inch cylinder, an 80 hp engine and 60-bushel grain tank. It was one Deere’s most popular combines ever and was advertised for its large size for the time—1962.

8. The John Deere 3300 combine was the most affordable combine on the Deere line during the late 1960s. It featured a 15-foot wide cutting platform and included Quik-Tatch mounting, which allowed farmers to switch corn and bean heads.
The John Deere 4400 combine offered a cutting platform up to 20 feet. The “New Generation” combines in this period featured redesigned cutting knives, increased knife speed and increased cutting capacity, allowing for faster overall ground travel—1975.

The John Deere 8-, 10-, and 12-row max emerge Soybean Special planter was introduced in 1981, with 20-inch spacing and three-bushel seed hoppers; optimal for no-and low-till planting.

The 1600 series Case IH Axial-Flows were introduced in the mid-1980s. They did not offer many major changes, but a lot of refinements compared to the 1400 series they replaced.

Deere’s 9500 combine was introduced in the late 1980s and continued into the 1990s. It featured a 55-inch wide feeder house, and used 900 series harvesting platforms and 50A row crop heads. The engine was turbocharged, 6-cylinder and 190 hp.
As a young member of society, I am often asked the question, “What do your future plans include?” When someone asks me about my future, I tend to hesitate with my answer. It is so simple and easy to say, “I plan to attend college, graduate with an agriculture major, and then find a job in that respective field.” In all reality though, I have no clue where I will end up.

The agriculture industry is growing and providing numerous jobs to students who are energetic, passionate, and hungry for success. That’s why I am so excited to be a part of it!

Right now the agriculture industry is changing faster than ever, and we are seeing many future issues being presented at the forefront of our minds. There always are the issues of feeding a growing population on less ground with fewer resources, the effects of the farm bill, or even the debate of genetically modified organisms versus organic practices.

Now, I am not saying those issues are not important, because they are. However, it seems that wherever I go or whomever I meet, they always talk about those same topics. When you ask someone who is familiar with agriculture about the challenges they foresee, your odds of hearing one of those three topics is pretty high. All of the above issues are concerns for me as well. Right now, some of the bills and laws being made will have some effect on the current generation, but the effect on the future generation of agriculturists will be much greater. Lawmakers need not only to think of the immediate effects of those issues, but also the long-term future effects that they will carry for both consumers and producers.

There are other important issues that don’t receive much media attention. One of those issues is the future jobs for the kids who won’t inherit their family farms. We all are aware that the sizes of farms are getting bigger, so the actual number of farms is getting smaller. The kids that grow up on farms learning how to grow the corn, soybeans and livestock are planning to come and take over for their families after college. But their parents may not be ready to retire, or the farm may no longer be in operation. These kids are now faced with the issue of finding a new career.

Some may find a position on another farm close by, but that is not for everyone. Some will take a position in an office or somewhere else within agriculture. I can speak firsthand that going from working outdoors on the farm to inside an office is a big transition!

As I look into the future, I foresee countless challenges that we will have to overcome, but within each and every challenge is the opportunity for my generation, and future generations, to show how we will persevere. Illinois soybean farmers have played a very significant role in the past, and will have an even more significant role in the future. I look forward to seeing how the Illinois Soybean Association prospers in the years to come! ✹
Embracing the Past, Envisioning the Future.

Carl Reum, the Soybean Production Award winner, began his supervised farming program with five acres of soybeans on his father’s farm. The following year, Carl and his brother rented 100 acres. They planted 80 acres of soybeans and 40 acres of corn.

During his freshman year, Carl was junior reporter for the Lexington FFA Chapter. He was elected chapter reporter and Section 9 sentinel during his sophomore year, and was chapter secretary as a junior. He has won chapter Foundation awards in crop farming and soybean production.

In high school, Carl was a member of the student council and the Lettermen’s Club. He participated in track, football, and basketball.

Pictured with Carl are James W. Elliott (1), agricultural occupations instructor at Lexington, and Fred Pumper, assistant professor at Western Illinois University.

Section and District Winners

1. Karl Scheider
   Orangefield
2. Lyle Rasmussen
   Millicanville
3. Steve Owen
   Canton
4. Bred Williams
   RFD (O Baby)
5. James Healy
   Waukon
6. Allen Stitz
   Bavarians
7. Gerald Johnson
   Sessa
8. Sherman Tweet Jr.
   Muncie
9. *Carl Reum*
   Lexington
10. Gene Wilkins
    Central (Clifton)
11. Walter Emory
    Hillside, Prairie City
12. Bill Dauke
    San Jose
13. Steve Arsam
    Unity (Meriden)
14. Dennis Some
    Pleasant Plains
15. Jon Freeman
    Jacksonville
16. Dan Evers
    Clinton
17. David Rohrer
    Alto (Brazsted)
18. Bill Warren
    Georgetown
19. Tim Roth
    Shingobing
20. Melvin Harike
    Diehl
21. Roger Koel
    Pottsville
22. Joe Leatsteld
    Marcell
23. Sam Zellinger
    Leslie (Olney)
24. Bruce Mosby
    Shattuck
25. Alfred Karcher
    Dalkton

Illinois FFA members have long played an integral role in helping further soybean production management practices. Here are the winners of the FFA Soybean Production Award from the 1972 FFA Annual Report.
Farmers have ordered 40 percent more Beck’s LibertyLink® soybeans this year. Why? Better weed control, higher yields, and the best way to fight glyphosate tolerant weeds. Order Beck’s LibertyLink soybeans today, while supplies last!

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