

Inaugural Soybean Research Forum and Think Tank Outcomes and Path Forward

Representatives from 19 soybean state QSSBs, two regional checkoff organizations, the USB, 17 state land grant universities, 12 large and small companies, and one federal agency met in Indianapolis, Indiana, on August 23-25, 2021, to consider the future of soybean farming and the soybean industry from a research perspective.

Prior to this meeting, a farmer interest survey was distributed, returned, and analyzed. Top research priority topics from farmers who responded from across the country were 1) soybean production research, including yield improvement, yield protection, agronomics and cropping systems, and soybean quality. 2) Sustainable systems for soybean production, including conservation, regenerative ag, and climate resiliency in genetics and production. 3) New uses and new markets for soybeans and soybean products.

Based on the survey and farmer direction, the primary goals of this meeting and this group included bringing farmers, staff, university researchers, company representatives and other stakeholders together for presentations, panel discussions, and small and large group dialogue and brainstorming on the desired future state of soybean farming and the soybean industry, and how soybean checkoff organizations can work more collaboratively to achieve the future state.

From a research perspective, the primary outcome of the Soybean Research Forum and Think Tank was the shared understanding that this important work will only be accomplished through dedicated and directed staff and organizational focus (with minimal overhead and administrative layers, and no added bureaucracy), for development and delivery of long-range strategic goals and underlying objectives that soybean farmers and checkoff stakeholders can pursue in advancing soybean farming and the soybean industry to shape, own and realize the future.

This document provides a starting point for ongoing and more formal collaborations across the soybean checkoff, a small and dedicated national research collaborative and leadership, and partnerships with others in the soybean industry. The large, long-range goals that follow include work that will be done by, with and through others (e.g. communicators, marketing experts, policy influencers) where research efforts can benefit from and contribute to raising awareness, promoting soybean research, production, and farmers, and contribute to advancement of farmers, the soybean industry and the broader society and consumer value chain. We intend to hold this meeting as an annual event.

Big Goals, supporting strategies and objectives:

Goal 1: Provide research-based solutions to soybean farmers for fully integrated and intelligent production systems that meet differentiated value opportunities.

- Using many of the objectives in Goals 2, 3 and 4, direct soybean research checkoff and non-checkoff (leveraged) investments at the best and brightest university, start-up, and other research groups to investigate, discover, develop, and commercialize components and systems for integrated ag technologies, biotechnologies, equipment, genetics, agronomy, environmental and similar solutions for farmers to create **“Optimized Soybeans and Soybean Cropping Systems”**

- Collectively prioritize and focus on application-directed and innovative investments for science, technology, data science, artificial intelligence, risk management solutions, decision tools, biotechnology, environmental science.
- Continue to identify, fund, and communicate research directed at high yielding and high quality commodity soybeans while leading in the search for research that will enable the development of specialty soybeans for unique uses and markets.
- Ensure research projects are driving future farm profitability and sustainability while more efficiently and effectively meeting consumer demands in both the short and long term
- Work with market research experts to better understand end users' needs and develop research programs for specialty soybeans with "specialized" traits, quality, composition, and end uses for food, feed, fuel, and fiber
 - Recognize that needs could be regionally differentiated and directed. Drive research to meet needs of this multi-scale optimization. For example:
 - Regionally optimized and custom oil profiles for renewable biofuels and other industrial, food, and feed applications
 - Regionally optimized and custom protein content and composition for improved livestock and aquaculture feed, human and pet food, and industrial new uses
 - Multi-scale optimization that provides higher value opportunities for farmers where it is favorable to engage without a complete de-commoditization of the industry
 - Establish a research pipeline that positions soybean farmers to respond to market opportunities
 - Be prepared for long-term needs while also being able to address short-term changes that arise
 - Stay cognizant of external policy that would impact market opportunities for soybean growers
- Continue to emphasize broad and holistic research programs for production of high yielding and high-quality commodity soybeans.
 - Improve and maintain integrated and best management solutions for yield potential, yield protection, efficient production and cropping systems, quality, output traits, and sustainability

Goal 2: Provide organized and focused leadership for cooperation, coordination, and alignment of soybean farmer research priorities and investments among states, regions, and the USB to tackle high-impact short- and long-range research discovery and development that complements and leverages work happening across all soybean checkoff organizations

- Establish the United States Soybean Research Collaborative (USSRC) as a farmer-led, member-driven, research-focused coalition of states, regions, and the national soybean checkoff organizations (USB, ASA and USSEC). The USSRC will be supported voluntarily by member soybean checkoff organizations' farmers and staff to consider existing research while leading in the development and execution of new and emerging technologies from universities, start-ups, and established companies.
 - Establish a Director position and operations budget in the USSRC to be supported by member states.
 - The Director will take input and advice on research priorities from a farmer-led Advisory Board and be accountable to a Management Team made up of the four Regional Program Research Directors (i.e. Atlantic Soybean Council, Mid-South Soybean Board, North Central Soybean Research Program, and the Southern Soybean Research Program)

- The Director of USSRC will have duties and responsibilities that include but will not necessarily be limited to the following:
 - Together, the Director, Management Team, and Advisory Board will assist farmers in seeking opportunities to jointly develop goals, strategies and objectives for shared research programming that will bring solutions to longer range farmer, customer, and industry needs.
 - Ensure independence and autonomy for each soybean checkoff organization to prioritize, fund and benefit from research in their states and regions.
 - Assemble a soybean checkoff research working group comprised of research directors/coordinators/strategic VPs from member states, regions and the USB to articulate research priorities and opportunities across production, regenerative ag and new uses that support farmers and help solicit and build research teams.
 - Partner with others in seeking new and emerging technologies and research collaborations that will bring value to farmers, end-users, and the industry
 - Establish equal and transparent partnerships among state QSSBs, regions, and USB for greatest ROI
 - Find complementary priorities/projects between stakeholders
 - Serve as a liaison leader to build networks of researchers and experts at the national level (understand what institutions/groups have experts in what areas and how to bring those experts together to reach goals)
 - Maintain communication with all state, regional, and national soybean checkoff research programs and projects.
 - Maintain communication and partnership with ASA, USSEC and multiple soybean checkoff communications, marketing, and promotions groups to establish a broad understanding of the soybean value chain, provide research-based input and information for these groups, and shape discussions and direction for future research activities, collaborations, and investments.
 - Investigate existing and new and emerging soybean research and technologies at universities, start-up companies, established companies and agencies to establish and present a broad perspective of value potentials to the Management Team and farmer-led Advisory Council.
 - Seek and establish meaningful public/private partnerships that will bring value to farmers in the short- and long-term.
 - Establish and direct all USSRC research programming:
 - Serve as the technical and business lead for the USSRC, with accountability to the Management Team.
 - Take input and advice from the Advisory Board and provide the Board with frequent updates on job responsibilities and activities.
 - Serve as a liaison with QSSBs, regional, and national soybean organizations to understand research priorities across production (supply) and new uses/new markets (demand) areas.
 - Lead communications and collaborations to develop shared strategies for USSRC research programming that complements and extends other soybean checkoff organizations.
 - Explore and communicate new and emerging research technologies and opportunities for soybean partnerships and investments with

universities, start-up companies, established companies, and similar across the spectrum of genetics, biotechnology, agtechnology, conservation, and similar.

- Establish one or both: a research request for proposals (RFP) or a process to invite appropriate research experts to collaboratively develop and execute programs to address soybean farmer priority needs and opportunities that will be multi-state, multi-disciplinary, integrated, and holistic in tackling key short- and long-range goals.
- Assemble ad hoc technical review teams to review proposals and/or monitor and track research progress.
- Track, monitor, ensure the communication and advancement of research results and information.

Goal 3: Support and work on behalf of soybean farmers in establishing leadership on partnerships for market research and similar work directed at attaining full connection across the soybean value chain and lead soybean research priorities that enhance farmer profitability by delivering short and long-range processors, customer, end-user and consumer-driven products and solutions.

- Lead or partner with others to facilitate farmer-led discussions with input/technology providers, processors, and end-users for more communication and coordination across the soybean value chain, with a priority goal of informing research that will meet the short and long-term needs of farmers in providing soybeans and soybean products to current and new markets.
 - Help to promote soybean farmers to industry-wide leadership in developing a system for communication, engagement, and research programming among farmers, technology developers and providers, retail and sales, processors, food/feed/fuel/fiber end users, and consumers
 - Consider and proactively address / engage with vertically integrated value chain leads
- Engage farmers, staff, and researchers with market researchers to:
 - Understand what consumers want today and tomorrow
 - Help shape consumer awareness and decisions about soy with data
 - Formalize processes to listen to consumers to inform and drive research priorities and funding
- Influence, direct and fund research discoveries, development, and commercialization with customer solution outcomes
- Expand partnerships with socioeconomics experts to incorporate these pieces in soybean research programs on new technologies, etc.

Goal 4: Establish the most cohesive, coordinated, and meaningful research communications and research marketing program to help promote US Soy.

- Not to be led or accomplished by the USSRC Director or researchers, research staff or the broader research community, but rather in partnership with soybean checkoff communications and marketing groups with expertise and/or contract relationships in communicating and marketing soybean farmers, farming, and science and technology innovations.
- The USSRC and the soybean research community/team will support efforts to bring all state, regional and national soybean checkoff organizations together for developing, owning, and promulgating a communication and marketing plan that informs and promotes soybean

research, soybean farmers and farming, and the soybean industry locally, regionally, and nationally.

- Influence public perception and create a space and process for bidirectional dialogue
- Promote the benefits of soybean research, specifically past success, current investments, future deliverables
- Deliver audience-appropriate deliberate and differentiated messages to promote and communicate soy and soy research
 - Identify a popular and nationally recognized soybean spokesperson
- Coordinate across all soybean checkoff organizations to support farmer boards in directing the research and data-driven information and messages to ASA and policy makers for informed state and national policies and regulations
 - Build a strong partnership between soybean research and ASA (American Soybean Association) to champion and obtain more public funding for soybean research, and with USSEC (United States Soybean Export Council) for more data-driven market and demand development
- Identify co-dependencies and partnerships across research and communications/marketing teams for increased output and assured success
- Incorporate communications/marketing efforts and groups into strategic planning and prioritization work to influence and drive research investment, collaborations, etc.