Kansas Soybean Commission
FY26 Request for Proposals (RFP)
Research and Education Priorities

The Kansas Soybean Commission is soliciting research and education proposals for FY 2026. Proposals are due to the Commission by the close of business on Monday, October 7, 2024. Do not include funding for Commissioner travel in your budget. The Kansas Soybean Commission uses Kansas soybean farmers' checkoff funds to support contract research and education projects across many areas including production ag, promotion of and education on soybeans and soybean products in feed, food and fuel, and new uses and new markets for soybeans and soybean products. **Please note that items listed in bold are of particular importance and interest to the Commission, and proposals addressing bolded topics are more likely to receive greater consideration. All submitted proposals should contain clear and audience-appropriate statements and language about the importance and potential short- and long-term benefits and impacts of the proposed research and education work.** Proposals will be accepted in the following areas:

1. Breeding, production, and environmental programs

In general, KSC supports innovative projects in breeding for yield and quality, water use efficiency, soil health, fertility and optimized production inputs, diseases, abiotic stressors, insect pests, sustainability and conservation practices, and education and outreach. Proposals should address cropping systems for Kansas soybean farmers and the Kansas soybean industry for the year 2025 and beyond and should focus on the most economical/efficient cropping systems with minimal impact on the environment. Proposals should preferably include investigators from at least two disciplines and **must include an economic impact analysis**. Proposals should address any of the following topics:

A. **Water Management and Water Use Efficiency** for continuous improvements in water conservation and maximized crop production with decreased water inputs. Proposed projects may span improvements in irrigation equipment (hardware and software), decision tools, management practices, genetic discovery, germplasm development, and trait characterization and introgression for improved water use efficiency, to include improved heat tolerance and drought resistance. Projects also may include related work to create climate resiliency across extreme

weather events, especially related to water, that may include temporal flood tolerance as well.

B. Best Management Practices (BMPs) for soybean production in Kansas to optimize inputs, maximize profitable yields and minimize the impact of nutrient elements and pesticides on the environment; compare new BMPs to current ones with verification of the on-site benefits to soil health and water quality (e.g. including monitoring run-off samples for specific nutrients/pesticides); cover crop species and management; preferences will be given to multidisciplinary research/extension team projects.

C. Crop protection/pest management; evaluations of existing and new products and practices to optimize safety and costs of inputs, including replacement of existing controls/seed treatments, for profitable soybean production and sustainable pest management.

D. Develop innovative, uniform, repeatable, high-throughput, laboratory, greenhouse and/or field methods to screen commercial soybean varieties for resistance against all economic diseases and pests. The intent of the research would be to develop accurate standardized methods that can be used by private companies and public breeding programs to accurately screen soybean breeding lines and commercial varieties.

E. On-farm/farm-scale research or validation of small-scale trials.

Other Specific Priorities/Suggested proposal topics include, but are not limited to:

- Production and Protection
    - *Diseases and disease management* - Sudden Death Syndrome (SDS), charcoal rot, iron deficiency chlorosis, efficacy of seed treatment active ingredients, mustard cover crop for Soybean Cyst Nematode (SCN);
    - *Insect pests and management* - insect management thresholds/decision support, spider mites, stink bugs, stem borer, Japanese beetles, gall midge; sulfur, efficacy of seed treatment active ingredients;
    - *Weeds and weed management* - herbicide-resistance and herbicide resistant weeds; new modes of action and/or new herbicide formulations or combinations; chemical alternatives for integrated approaches to weed management; drought and herbicide efficacy

    - *Production* - gypsum, sulfur, efficacy of applications with micronutrients and biologicals, planting dates and other production practices for the different regions of the state;
- **Breeding** – continued identification, characterization and introgression of yield improvement and yield protection genes and traits (diseases, insect, weeds, abiotic stressors), drought resistance, heat tolerance, high yielding high-oleic beans, protein and oil (quality) testing data from research test plots, what processors want (oil, protein, etc.);
- **New Technology** – advanced technology with precision ag, artificial intelligence, robotics, drones, etc. for crop imaging, spraying, electrostatic spraying, advanced application methods for fungicides and insecticides, development of artificial intelligence; predictive modeling and decision tools.
- **Environmental** – improved CI score for soybeans, soil health, carbon sequestration (measurement, valuation, improved practices, influence of soil type/texture, theoretical maximum capture), water quality, nutrient management, field scale/producer collaborative studies, the effects of herbicide drift and herbicide volatilization; relay cropping, multicropping, and cover crops.
- **Technology transfer/diffusion of innovation** – strategies for intellectual property generation and protection, out-licensing, communication and outreach, uptake and adoption of germplasm, technologies, tools, data, and information derived from checkoff-funded research.

Suggested participants include, but are not limited to: Departments of Economics, Agricultural Engineering, Agronomy, Animal Sciences and Industry, Entomology, and Plant Pathology; Branch Experiment Stations; Research-Extension Centers; Area Extension Offices; and cooperative interstate research centers. Cooperation with other institutions inside and outside of Kansas is encouraged. **Researchers are encouraged to include graduate and/or undergraduate students on the research team.**

2. Livestock, aquaculture, and pet nutrition

Proposals should align with and complement the priorities of the KSC and the Soy Aquaculture Alliance (SAA) to address livestock and aquaculture nutritional needs that will increase the domestic and international utilization of soybeans, especially in the United States and Kansas. The proposals should preferably include principal investigators from at least two disciplines and must focus on one of the following topics:

A. New and innovative uses and markets for commodity and specialty soybeans as vital components in livestock, aquaculture, and pet nutrition. Especially consider the developing pet food and dairy industries in Kansas.

Suggested/Prioritized proposals should include: cooperative work with other livestock (beef, pork, poultry, small animal, etc.), aquaculture, and pet organizations and companies; research into Kansas aquaculture; research into high-protein concentrate.

3. Human nutrition and food safety studies

Proposals should address human nutritional needs that will increase the utilization of soybeans in domestic and international markets, especially for the United States and Kansas. The proposals should preferably include principal investigators from at least two disciplines and must focus on one of the following topics:

A. Methods for detection/quantification/elimination of anti-nutritional and allergenic components.
B. Scientific response to crop and food health, nutrition, and safety concerns **and ways to improve consumers' perception of soybeans and soybean products**.
C. New and innovative uses of soybeans as vital components in human nutrition and health.

Suggested participants include but are not limited to: Departments of Agricultural Economics, Agricultural Engineering, Animal Sciences and Industry, Grain Science and Industry, and Foods and Nutrition; Branch Experiment Stations; and Research Extension Centers. Researchers are encouraged to include graduate and/or undergraduate students on the research team.

4. Value-Added projects

The proposal program should be commercially significant and have the potential to utilize large quantities of soybeans. Developing and commercializing competitive industrial uses for soybeans includes two key aspects: **commercialization** and **competitiveness**. If new innovations are not competitive, they cannot be commercialized. If they are not commercialized and sell additional soybeans, we cannot meet our goals of improving profitability for Kansas soybean farmers. The proposal should preferably include principal investigators from at least two disciplines plus private entity

cooperation. The research should build on the strengths at an institution and must address at least one of the following topics:

A. Opportunities for identity-preserved, **including high-oleic**, grain marketing/processing technology; transportation and infrastructure needs; on farm storage practicality; incentive discovery.
B. Identify additional value-added uses of the chemicals/components of the soybean plant.
C. **Alternative uses of soybeans and related by-products.**

Suggested/prioritized proposals include, but are not limited to: alternative fuels, biodiesel in electrical generation, renewable diesel, bio-based materials, commercialization of technologies in the materials industry, adhesives in the auto industry, soy-based plastics, binders in pressed-wood products, weather-proofing products and dust suppressants.

Suggested participants include but are not limited to: Departments of Agricultural Economics, Agricultural Engineering, Foods and Nutrition, Grain Science and Industry, Chemistry, and Fuel Engineering; and the Kansas Department of Agriculture. Researchers are encouraged to include graduate and/or undergraduate students on the research team.

5. Marketing extension program and transportation

The proposed program should include extensive educational training of soybean pricing, crop disappearance/market share, crop insurance options, yield protection, farm program considerations, and options in marketing available to Kansas soybean producers. Programming should be conducted in conjunction with private sector industry representatives to further explore opportunities in the marketplace for pricing and/or value-added options.

A. Research and education programs to provide producers a means of developing comprehensive, farm-level risk management programs.
B. Research and education programs to estimate the value of grain characteristics and determine the effect of changes in supply and demand on grain markets.
C. International market development with focus on utilizing Kansas soybeans.

Suggested participants include, but are not limited to: Extension Agronomy, Ag Communications and Journalism, Ag Economics, Ag Education, Rural Sociology, Grain Science and Industry. Researchers are encouraged to include graduate and/or undergraduate students on the research team.

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