

Kansas Soybean Commission

REQUEST FOR PROPOSALS

Fiscal Year 2025 July 1, 2024 to June 30, 2025











Date: September 11, 2023

To: Kansas universities, organizations, educational entities, and others interested in submitting proposals for Kansas Soybean Commission funding

From: Adam O'Trimble, Director of Operations and Accounting, and Ed Anderson, Research Consultant

Re: Proposals to the Kansas Soybean Commission for Fiscal Year 2025

Please bring this request for proposals to the attention of others who would be interested in submitting proposals for funding for FY 2025.

The deadline for submitting proposals to the Kansas Soybean Commission office is Wednesday, October 18, 2023. The preferred method of submission is by email to otrimble@kansassoybeans.org and and anderson@kansassoybeans.org with the proposal attached as a Microsoft Word or PDF document.

Proposals also may be submitted on a USB flash drive as a Microsoft Word or PDF document to:

Adam O'Trimble Kansas Soybean Commission 1000 SW Red Oaks Place Topeka, KS 66615-1207

Please follow the attached proposal instructions. Note that the length of proposals is limited to five pages plus the cover page. If your proposal is preliminarily approved by the Kansas Soybean Commission, you will be asked to make a formal presentation to the Commissioners in person at the Kansas Soybean office in Topeka, Kansas, or by video or audio conference on December 14 or 15, 2023.

Attachments

Kansas Soybean Commission FY25 Request for Proposals **Research and Education Priorities**

The Kansas Soybean Commission is soliciting research and education proposals for FY 2025. Proposals are due to the Commission by the close of business on Wednesday, October 18, 2023. Do not include funding for Commissioner travel in your budget. 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. Proposals will be accepted in the following areas:

1. Breeding, production, and environmental programs

Proposals should address cropping systems for Kansas soybean farmers and the Kansas soybean industry for the year 2024 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 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, 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
- 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;
- 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;
- **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 of commodity and specialty soybeans as vital components in livestock, aquaculture, and **pet** nutrition.

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 antinutritional 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.

For more information contact:

Adam O'Trimble
Director of Operations and Accounting
Kansas Soybean Commission
otrimble@kansassoybeans.org

Ed Anderson, PhD
Research Consultant
Kansas Soybean Commission
anderson@kansassoybeans.org

Kansas Soybean Commission FY25 Request for Proposals Instructions

The following instructions are provided to aid in the preparation of project proposals. Failure to follow these instructions may remove your proposal from further consideration.

1. Estimated Period of Performance

We anticipate that the agreement for this proposed project would begin on July 1, 2024, and end on June 30, 2025, with one interim report required and, unless otherwise stipulated, a final report due no later than August 15, 2025. If this agreement period is not the most suitable for completing the project, we ask that the proposal recommend a different agreement period. For production-research proposals requiring transition funding for the spring 2024 planting season, researchers are encouraged to submit a one-time FY2025 proposal that captures, in the objectives and the budget, that additional spring work and funding.

2. Technical Questions

All questions pertaining to this solicitation shall be directed to:

Adam O'Trimble
Director of Operations and Accounting
Phone: (785) 271-1040
otrimble@kansassoybeans.org

Ed Anderson Research Consultant Phone: (515) 250-2657 anderson@kansassoybeans.org

3. Submission of Proposals

The deadline for submitting proposals to the Kansas Soybean Commission office is close of business on Wednesday, October 18, 2023. Please submit all proposals in electronic form to otrimble@kansassoybeans.org and anderson@kansassoybeans.org or on a flash drive to:

Adam O'Trimble Director of Operations Kansas Soybean Commission 1000 SW Red Oaks Place Topeka, KS 66615-1207

4. Proposal Format

Proposals should be no longer than 5 pages plus the cover page. Proposals should be written in lay language, and they should contain the following information:

- a. Cover page: Follow the format for the cover page.
- b. Title: The major thrust of the project. Highly technical words or phraseology should be avoided; do not use scientific jargon; use common names for all organisms. No more than 15 words for the title.
- c. Principal investigator(s), department, telephone number, and e-mail address.
- d. Objectives: A clear and complete one-sentence statement for each specific numbered objective of the project arranged in logical sequence.
- e. Procedure: a description of the investigations and/or experiments proposed; techniques to be used in carrying out the proposed project; methods by which experimental data will be analyzed, or interpreted; procedure of applying results or accomplishing technology transfer.
- f. Justification: Importance of the issue to the benefit of Kansas's soybean farmers.
- g. Objective: In addition to explaining the proposal's objective, if possible, indicate the specific Kansas Soybean Commission priority being addressed by number and letter.
- h. Project location(s): Location(s) for field research and test laboratories.
- i. Duration of the project (number of years): If this is a multi-year project, which year does this proposal represent? Projects will be approved for only one year at a time. What are the exact start and end dates?

- j. Budget: Itemize the budget splitting out labor, travel, and other costs. The Kansas Soybean Commission does not normally fund equipment purchases, institutional overhead, nor principal investigator salary. Universities may pay (under)graduate assistants to assist with the work, but the Kansas Soybean Commission will not pay a student's tuition. If your project contains travel opportunities for Kansas Soybean Commissioners or staff, do not include those costs in your budget because the Kansas Soybean Commission will pay those directly.
- k. Facilities and equipment: Are they adequate to complete the project? Describe.
- l. Cooperators: List all private and public cooperators and their role in and relationship to the proposal. Proposed research may complement and extend but must not duplicate already funded research. Where applicable, provide a concise listing of related research and funding sources for the PI and collaborators, and a brief description of how this check-off funded research will be used to attract or complement additional funding support (public and private: e.g. USB, QSSB, USDA, company) to extend knowledge or expand research breadth and depth, especially in cases where basic research funding is requested.
- m. Related information: A summary of the most significant work related to the project should be described. Provide a brief review of how the proposed project will supplement previous work. For continuing projects, including a summary of accomplishments to date is necessary.
- n. Expected outcome: Provide a brief description of the expected outcomes of the proposed research or education program. The expected outcomes may be the generation of new information as reflected in tangible products such as new varieties, development and/or acceptance of new methodologies, research and Extension publications, patents, software, and others. Where feasible, identify the measurable economic, social, and environmental benefits expected to result from the project. Examples of such benefits include cost savings, enhanced economic and employment impacts, improved health and nutrition, human or community development, more efficient natural resource utilization, and minimizing the impact of agriculture on the environment. Identify, where appropriate, the potential recipients of the benefits such as producers, consumers, taxpayers, and communities. Describe how the results of the research will be communicated to potential users. If outcomes are not expected during the life of the project, please develop a schedule.

5. Project proposals will be reviewed by the Commission and/or independent panels using the following criteria:

- a. Significance of the proposed project to the priorities of the Kansas Soybean Commission.
- b. Likelihood the project will improve the profitability of soybean farmers and meet the expected outcomes of the project.
- c. Relationship of proposed research to ongoing and past research and whether it is complementary or unique to ongoing and past research.
- d. Interdisciplinary expertise/talents.
- e. Facilities and equipment available.
- f. Private and public entity cooperation including multi-state interaction and cooperation.
- g. Duration of project.

6. Funds not used shall be returned to the Kansas Soybean Commission

(Cover Page Format)			
<i>Title:</i> (No more than 15 w	ords for title)		
<i>Proposal to:</i> Kansas Soyb	ean Commission		
From:			
Requested Funding Period	<i>d:</i>		
Amount Requested:			
Project category:	 Breeding/Production/New Technology/Environmental Programs Livestock, aquaculture, and pet nutrition. Human Nutrition/Food Safety Studies Value-Added Projects Marketing Extension Program and Transportation 		
Why does this project mat	tter? (100 word limit)		
Project Status:	New Project orContinuing Project (year oftotal years)		
Principal Investigator(s) And Unit(s): (Do not include collabora	tors.)		
Approved Signatures:			
	Principal Investigator(s)		
	Unit Head(s)		

Education Program Project Funding Application Line-Item Budget

Name	α f	Dro	ioct:
Name	Οī	LIO	JCCL.

Name of Organization:

Description	Budget Detail	Total Budget	
Contractual Services		\$	
List hours and rates for each position workin hours @ \$ /hour for Vice President/Pahours @ \$ /hour for Supervisor hours @ \$ /hour for Manager hours @ \$ /hour for Coordinator hours @ \$ /hour for Assistant hours @ \$ /hour for Secretarial/Cleric Market Studies	artner \$ \$ \$ \$ \$ cal \$	\$	
studies necessary to complete project	\$ \$		
Meetings and Conferences	·	\$	
cost of meeting room and meals seminars @ \$ each	\$ \$ \$		
Travel		\$	
trips @ \$ each including lodging, tran		5	
Drinting	\$	\$	
Printing @ \$ each @ \$ each	\$ \$ \$	٦	
Postage		\$	
mailings of pieces @ \$ per piece	\$ \$		
Other Operating Expenses		\$	
delivery charges, subscriptions, supplies,	etc. \$ \$		
Equipment Rental		\$	
projector, media player, etc.	\$ \$		

Kansas Soybean Commission FY25 Request for Proposals

Proposal Budget

Proposed Budget Summary Attach supplemental detail for items of \$5,000 or more. Estimate institutional investment for review purposes.	Year 1	Year 2 (KSC normally does not fund projects for more than 1 year at a time)	Totals
A. Salaries and Wages: Total*			
(show hours x rates)			
Principal Investigator(s)			
Senior Associate(s)			
Research Associate(s)/Post Doctorate			
Other Professional(s)			
Graduate Student(s)			
Undergraduate Student(s)			
Secretarial/Clerical			
Technical, Shop, Other			
B. Fringe Benefits			
(show university rate formula)			
C. Materials Testing and Services			
D. Expendable Materials/Supplies			
E. Travel			
F. Subcontracts			
(attach a separate page for each)			
G. All Other Direct Costs			
(attach support data)			
H. Capital Equipment			
KSC preferably does not pay this cost.			
I. Total Amount of This Request			

^{*}KSC will allow wages to be paid to (under)graduate students but will not pay for a student's tuition.