ILLINOIS SOYBEAN ASSOCIATION

CHECKOFF FUNDED RESEARCH

Illinois Soybean Association (ISA) is funding Soybean Production research projects through the checkoff in 2025–2026. Many are multi-year studies focused on long-term solutions to critical challenges in Illinois soybean production.

2025-2026 RESEARCH PROJECTS

SEPTEMBER 1ST – AUGUST 31ST

PEST MANAGEMENT

AGRONOMY

CONSERVATION PRACTICES

Funded by the Illinois Soybean Checkoff

PROJECT	WHY IT MATTERS	INSTITUTION/ PRIMARY INVESTIGATOR	FISCAL YEAR(S)	2026 PROJECT BUDGET
Measuring Soil Health, Water Quality, and Climate Impact on Illinois Soybeans	Measuring soil health, nutrient loss, carbon sequestration, and GHG emissions across cropping systems to better understand how conservation practices impact productivity and environmental outcomes across different rotations and regions.	University of Illinois – Dr. Andrew Margenot	2023-2026	$182,179
Residue Management and Nutrient Value for Soybean Production	Tracking the release of nitrogen and sulfur from corn, wheat, and cereal rye residue for soybean uptake, while also evaluating how tillage and biologicals affect the rate and amount of nutrient release.	University of Illinois – Dr. Andrew Margenot	2025-2026	$85,418
Evaluation of a Targeted Conservation Plan in the Lake Bloomington Watershed	Analyze water quality data from Lake Bloomington and Evergreen Lake watersheds to identify nutrient loss hot spots and provide farmers with targeted resources to support adoption of conservation practices such as cover crops.	Purdue University – Dr. Shalamar Armstrong	2025-2026	$123,250
Integrated Management Strategies for Maximizing Soybean Production in Conservation Tillage Systems	Assess how soil type, starter fertilizer, tillage, and row spacing affect soybean growth, nutrient uptake, yield, and seed quality to help farmers plant into heavy residue without sacrificing performance.	University of Illinois – Dr. Giovani Preza Fontes	2024-2026	$98,124
Refining Cover Crop Recommendations for Corn-Soybean Rotations Based on Species and Timing	Compare how different cover crop species and mixtures, combined with two termination timings, affect corn and soybean performance in rotation to help refine regional recommendations for farmers and advisors.	University of Illinois Extension – Nathan Johanning	2026	$27,781
Evaluating the Impact of Cover Crops on Lesion Nematodes in Soybeans	Assess how cover crops influence lesion nematode populations and their impact on soybean yield through field and greenhouse studies, while identifying and evaluating the pathogenicity of different lesion nematode species found in Illinois.	University of Illinois – Dr. Nathan Schroeder	2026	$34,000

NOTE: 2026 PROJECT BUDGETS REFLECT FISCAL YEAR FUNDING FROM SEPT. 1 2025 - AUG. 31 2026. UPDATED AS OF AUG 2025.

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Bioherbicides to Control Palmer Amaranth and Waterhemp in Soybeans	Develop and test bioherbicides that specifically target palmer amaranth (pigweed) and waterhemp without harming soybeans, while creating a commercialization roadmap to provide farmers with a cost-effective, sustainable weed control option.	Southern Illinois University – Dr. Ahmad Fakhoury	2026	$65,000
Using Integrated Weed Management to Control Waterhemp in Soybeans	Develop integrated weed management strategies that combine cover crops, herbicides, and tillage to control herbicide-resistant waterhemp, protect soybean yields, and support long-term sustainability.	Southern Illinois University – Dr. Karla Gage	2026	$59,700
Managing Weeds in Early-Planted No-Till Soybeans	Evaluate the effectiveness of PRE and POST herbicide programs, with and without cereal rye, for weed control in early-planted no-till soybeans to help farmers maintain yield and manage resistance under tight application windows.	University of Illinois – Dr. Aaron Hager	2026	$22,500
Using Genetic Engineering to Help Control Soybean Cyst Nematode	Using genetic engineering, including CRISPR, to find new ways to reduce SCN reproduction and survival, with lab testing to identify the best options.	University of Illinois – Dr. Matthew Hudson	2025-2026	$75,942
Diversifying Genetic Resistance to Soybean Cyst Nematode	Developing new soybean varieties with stacked SCN resistance genes, giving farmers more options to rotate and better manage SCN in their fields.	University of Illinois – Dr. Eliana Monteverde	2025-2026	$56,962
Using Electrically Polarized Nanomaterials to Help Control SCN and SDS in Soybeans	Evaluate electrically polarized nanomaterials as a novel tool to control soybean cyst nematode (SCN) and sudden death syndrome (SDS), building on lab results that show rapid pathogen deactivation and moving into greenhouse trials for further testing.	Southern Illinois University – Dr. Punit Kohli	2026	$48,643
Free Soybean Cyst Nematode Testing for Illinois Farmers	Offer free SCN soil sampling to help farmers determine presence, population levels, and response to available soybean resistance sources.	University of Illinois – Dr. Nathan Schroeder	2024-2026	$59,072

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Red Crown Rot Management in Soybeans	Detect red crown rot (RCR) hotspots with satellite imagery, evaluate commercial products, and study how those treatments influence the interaction between RCR and soybean cyst nematode to improve disease management in soybean fields.	University of Illinois – Dr. Boris Camiletti	2025-2026	$93,559
Measuring How Insect Pests Impact Yields and the Value of Pest Control Products	Understanding which insect pests affect soybean yields and how often pest control products deliver a profitable return in Illinois fields.	University of Illinois – Dr. Nick Seiter	2024-2026	$86,323
Enhancing the Profitability of Wheat-Soybean Double Cropping	Characterizing and developing new high-yielding winter wheat varieties with early maturity – an important trait that enables earlier planting of double-crop soybeans to maximize yield potential.	University of Illinois – Dr. Jessica Rutkoski	2024-2026	$26,222
Improving Soybean Protein Quality Through Genetic and Environmental Characterization	Evaluate genetic variation and environmental effects on amino acid composition in soybean breeding lines to identify stable, high-protein genotypes that meet the nutritional demands of feed and food markets.	University of Illinois – Dr. Eliana Monteverde	2026	$33,770
Evaluating Leaf Nutrient Tissue Testing and Relation to Soybean Grain Yield	Determine which nutrients and in what quantities are remobilized within soybean plants through tissue testing to improve the accuracy and timing of in-season nutrient recommendations and maximize yield.	University of Illinois – Dr. Fred Below and Dr. Connor Sible	2024-2026	$53,163
North Central Soybean Research Program	Fund soybean production research and extension outreach in the north central region of the United States.	Multiple universities	Multi-Year	$150,000
U.S. Soybean Genetics Collaborative	Share expertise, build strategic alignment, and drive technology advancement across public soybean breeding and genetics programs.	Multiple partners	2026	$30,000

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