



WHICH PRACTICES HELP IMPROVE SOIL HEALTH AND WATER QUALITY WHILE ALSO GIVING ME THE ABILITY TO TAKE ADVANTAGE OF ECOSYSTEM MARKETS LIKE CARBON CREDIT PROGRAMS?

INFORMATIONAL SHEET

Published September 2024
Project Status: Year 3

BENCHMARKING AND INTEGRATING SOIL HEALTH, WATER QUALITY, AND CLIMATE-SMART FOOTPRINTS OF ILLINOIS SOYBEANS

Dr. Andrew Margenot

Associate Professor, University of Illinois Urbana-Champaign

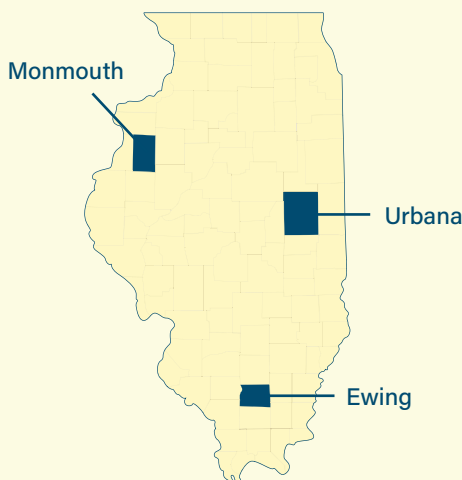
217-300-7059

margenot@illinois.edu

PROJECT SUMMARY

This project is assessing soil health, water quality and climate footprint metrics across the state's growing regions (south, central, north) and cropping systems (soy-corn, double-crop wheat-soy with corn rotations). It will help inform practice-based recommendations that protect soil health and water quality, as well as provide insights farmers can use as they explore ecosystem credit programs.

TRIAL LOCATIONS



WHY THIS RESEARCH IS IMPORTANT

- ❗ Conservation practices, particularly those related to soil health, are seen as a way to improve farm productivity and longevity, as well as help alleviate climate change. Because of the various cropping systems, growing environments and myriad other factors, there is a lack of metrics quantifying the outcomes of these practices.
- ❗ This research will measure soil health indicators, nutrient loss by leaching, soil carbon sequestration and greenhouse gas (GHG) emissions across soybean cropping systems. As a result, researchers will have a better understanding of how these metrics vary by soil health practices, crop rotation and location.

HOW THIS RESEARCH BENEFITS THE FARMER

- 🎯 Illinois soybean farmers will be equipped with tangible metrics for soil health, water quality and climate footprints across the state's cropping systems and growing environments.
- 🎯 They can use this knowledge to assess which practices to implement on their farms. In addition, they can use the data as a mechanism to position the sustainability, or climate-smart, characteristics of Illinois soybeans within the global market and capitalize on emerging ecosystem markets, such as carbon credit programs.



CHECK OUT FIELD ADVISOR!

See updates and learn more about this project, the research team and other projects at FieldAdvisor.org.

Contact the ISA agronomy team: agronomy-team@ilsoy.org.

