Covering the ground: A transformative approach to scientific learning for greater cover crop adaptation in Iowa

Abstract:
This project studied how farmers are making cover crops work in their cropping systems, which are dominated by corn and soybean rotations in much of Iowa. Researchers shared considerable data on cover crops with farmers in four focus groups and then encouraged them to engage with other farmers about their knowledge and experience with cover crops.

What was done and why?
The project explores the potential for a data-driven intervention that will lead to wider farmer adoption of cover crops in Iowa. The PIs theorized that the data produced by synthesizing long-term research, agro-economic modeling activities and on-farm trials will yield a compelling informational tool. When presented to farmers, it will facilitate feedback and comprehensive consideration of long-term costs and benefits of cover crop adoption in ways that counter short-term adoption concerns.

Although much prior research has focused on analyzing factors that help predict cover crop use on farms, there is limited research on how farmers navigate and overcome field-level (e.g., proper planting of a cover crop) and structural (or institutional) barriers (e.g., market forces) associated with the use of cover crops.

The objectives for the project were to:
• via farmer focus group discussions, provide farmers with a unique synthesis of empirical and simulated agro-economic cover crop information to expand understanding of the pros and cons of cover crop adoption; and
• evaluate the effect of this information on the behavioral intentions of farmers with regard to cover crop adoption.

What did we learn?
Participants in the focus groups received a great deal of information and the ensuing discussions highlighted the complex barriers to cover crop adoption faced by farmers. The conversations also focused on showing how innovative farmers are implementing cover crops within their operations. This information can be used by Iowans interested in promoting conservation practices such as cover crops, as it adds an important nuance to the conversation of scaling up such practices. Farmers need continued support to address the structural barriers which may require improved policy interventions.