

Do Cover Crops pay? Expanding a Learning Circle for Peer to Peer Cover Crop Promotion Using Economics as a Theme

Project Titles: Do Cover Crops pay? Expanding a Learning Circle for Peer to Peer Cover Crop Promotion Using Economics as a Theme

Coordinators: Jim Stute

Location: Wisconsin

SARE Grants: \$29,355

Duration: 2017-2020

To read the full project reports, go to <https://projects.sare.org/> and search for project number **ONC17-034**.

Cover crops can improve a farmer's bottom line in many ways, whether it's by lowering fertilizer needs, reducing weed and pest pressure, or boosting yields, but as with any investment, there are things to take into consideration when planning. Jim Stute is a farmer in southeast Wisconsin, and a crop and soil researcher with the Michael Fields Agricultural Institute (MFAI), and he's been experimenting with cover crops for about 30 years. With support from a \$29,355 NCR-SARE Partnership grant, Stute is currently partnering with five grain farmers to collect data to determine the impact of various cover crops on crop yield and bottom lines. He has been using partial budget analysis, factoring in all additional costs and returns, to determine the effect on farm profitability.

"Farmers recognize soil health benefits of cover crops, yet are weighing every input purchase in the current market environment and may forgo this production expense at the risk of soil and environmental quality," said Stute. "SARE funded work has demonstrated yield benefits to crops which follow covers; we will document and demonstrate them at the local level and provide a financial incentive for adoption."



Corn yield measurements were taken on two farms in Palmyra and East Troy, Wisconsin, as part of a SARE supported cover crop economics analysis project underway in southeast Wisconsin.

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The project is ongoing, but strip-trials have been conducted with and without cover crops using the partnering farmers' cover crop of choice. The farmers, who are experienced cover crop users, have been following their routine field practices for establishing and terminating the cover crop. Their findings, thus far, have indicated:

- Cover crop use increased average corn yield by 6.4 bu/acre (3.2%) and soybean yield by 1.4 bu/acre (1.9%).
- At current commodity and input prices, break-even yield increases were 5.6% for corn and 3.9% for soybean.
- Additional yield partially offset cover crop cost, reducing the average cost from \$30.08 to \$16.89 per acre.

“We are using field-scale equipment and fieldlength strips with multiple replicates,” said Stute. “Our analysis uses their actual costs and returns, eliminating the assumptions which often accompany economic analysis.”

Stute wants to use the data to persuade nonusers to adopt cover crop in order to protect soil and water resources in the region. As results become available, he will engage in peer-to-peer promotion of cover crops to help to increase adoption.

“Cooperating farmers will be a key component of our outreach efforts, sharing their data and experiences,” said Stute. “Research shows that peer-to-peer learning is highly effective for increasing adoption of sustainable practices. Also, the relationship between one of our cooperators (Tom Novak, crop consultant) and his clients gives us a large audience for our outreach efforts as well as a long-term tracking mechanism for adoption rates,” explained Stute.

For more information on Buller's NCR-SARE Partnership grant project, visit the SARE project reporting website. Simply search by the project number, ONC17-034, at <https://projects.sare.org/>, or contact the NCR-SARE office.

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