

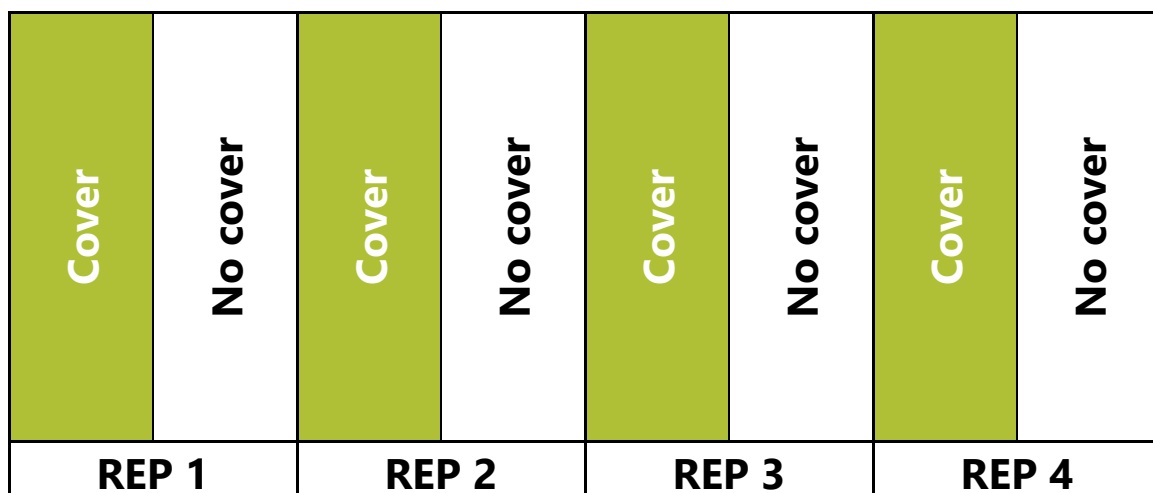
Field Crops Research Protocols

Do Cover Crops Increase Soil Health?

Objective: With the leadership of Dr. Marshall McDaniel, soil microbiologist at ISU, we will determine if cover crops are universally beneficial to soil health and attempt to improve upon current soil health tests by assessing the novel Tea Bag Index.

Farmer-cooperators will:

- Take photos throughout the project.
- Keep in contact with PFI with updates and questions.
- **Fall 2016**, plant winter cereal rye in replicated "strips and skips" as shown in diagram below.
 - Note and report to PFI cereal rye seeding date, rate and method.
- Strips will be as wide as at least one combine pass and run the length of the field.
- **Spring 2017**, terminate strips of cereal rye with herbicide in late April to mid-May and plant corn.
 - Note termination date and cereal rye height at time of termination.
- Assist Dr. McDaniel's team with collecting soil samples from strips according to their established protocol on six occasions throughout the growing season.
 - Assisting this effort will primarily consist of directing McDaniel's team to the location of the field and the cover and no-cover treatment strips.
- **Fall 2017**, harvest corn from strips separately. Use a weigh wagon or yield monitor to record yields from each individual strip.
- Turn in data to Practical Farmers of Iowa at the end of the project.



Practical Farmers of Iowa (with Dr. McDaniel) will:

- Help set up monitoring protocol, monitor progress of project and provide support when needed.
- Publish results in a PFI research report, on PFI website, and potentially other outlets.
- Provide \$550 compensation at conclusion of the project in 2017.

Contact: Stefan Gailans, Research and Field Crops Director, (515) 232-5661; stefan@practicalfarmers.org

The terms of this Research Protocols document are subject to the terms of the individual Research Cooperator's Memorandum of Understanding agreement with PFI. To the extent these terms may differ or conflict, the Memorandum of Understanding shall control.