Objective: Quantify the agronomic and economic effect on soybeans following spring-seeded cover crop mixes.

Farmer-cooperator will:
- Take photos throughout the project and keep in contact with PFI with updates and questions.
- Early Spring 2017, plant at least four replicated strips of cover crop mixes and no-cover control in two fields as shown in diagram below.
  - Field 1: hairy vetch + lentils + crimson clover + oats + barley + rapeseed + flax + sunflower.
  - Field 2: oats + barley.
- Strips will be as wide as at least one combine pass and run the length of the field
- Spring 2017, collect aboveground biomass samples of cover crop mixes in both fields near termination.
- Plant soybeans and terminate the cover crop mixes in both fields.
- Collect soil moisture readings at soybean planting, cover crop termination, 2 weeks after planting and 6-8 weeks after planting.
- Fall 2017, harvest soybeans from strips, record yield of each strip from both fields.
- Turn in data to Practical Farmers of Iowa at the end of project.

Practical Farmers of Iowa 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 $1,100 compensation at conclusion of the project in 2017.

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