



**RESEARCH
 PROTOCOLS**

**Interseeding Cover Crops to Corn
 in Early Summer**

Objective: Determine the effect on corn grain yield of cover crops interseeded to corn in early summer.

Hypothesis: Interseeding cover crops will produce yields similar to where no cover crops are interseeded. Interseeding cover crops to corn in early summer will successfully establish cover crops.

Farmer-Cooperator will:

- Follow Research Protocols in accordance with Project Design, Data to Collect, Photo List and Timeline detailed below.
- Take photos throughout the project. Try to capture photos that depict the differences you observe among the treatments.
- Keep in contact with PFI with updates and questions.
- Turn in data and complete post-project survey by November 2020.

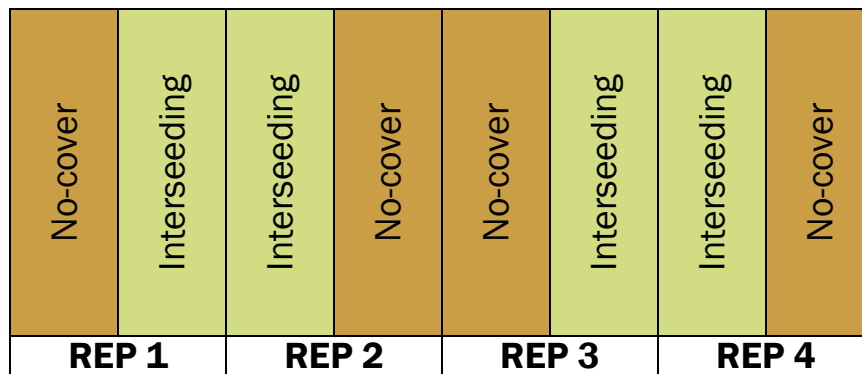
Practical Farmers of Iowa will:

- Help set up research 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 research honorarium to cooperator upon receipt of data.

Project Design:

Treatment	Description
Interseeding	Interseed cover crops to corn in early summer when corn reaches ~V4 stage or at layby (last pass through field).
No-cover	No interseeded cover crops (control).

- Apply these two treatments in a randomized, replicated trial: at least four replications of randomized paired strips. 2 treatments x 4 replications = 8 strips total.
- Cover crops for interseeding are entirely at the discretion of the cooperator.
- Strips must be at least as wide as one combine pass and should run the length of the field.
 - Example layout:



Data to Collect (cooperator):

- Corn grain yield
 - Harvest and record yield and moisture from each strip.
- Cover crop biomass
 - Just prior to corn harvest, sample aboveground biomass from each strip.
 - Randomly place 1'x1' PVC square in strip
 - Use shears to clip all aboveground plant material from within the square
 - Place all plant material from a single square into one paper bag
 - Label paper bags accordingly
 - Rep #
 - Number of squares sampled from (e.g., 1 square = 1 ft²)
 - Date of collection
 - Optional: Repeat this process 2-3 times per strip
 - (e.g., 2-3 paper bags per strip)
 - Send paper bags to PFI office
 - Samples will be dried and weighed

Photo List (cooperator):

- Interseeding cover crops; equipment in field.
- Cover crops growing in interrows (throughout season).
 - Close-ups of each species.
 - Wider shots of multiple species growing together.
- Cooperator collecting data.
- Cooperator in field trial.

Project Timeline:

Spring	Summer	Fall
<ul style="list-style-type: none">• Plant corn to entire field.	<ul style="list-style-type: none">• Interseed cover crops to 'Interseeding' strips when corn reaches ~V4 stage or at layby.• Take photos.	<ul style="list-style-type: none">• Collect cover crop biomass samples just prior to corn harvest.• Harvest corn from all strips.• Turn in data and photos.• Take post-project survey.

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