

# Field Crops Research Protocols

## Corn Leaf Architecture and Planting Population for Interseeded Cover Crops

**Objective:** Determine if corn leaf architecture and planting population affects the successful establishment of cover crops interseeded at the V4 stage.

**Farmer-cooperator will:**

- Take photos throughout the project and keep in contact with PFI with updates and questions.
- **Spring 2017**, plant two corn hybrids in replicated strips as shown in diagram below.
  - One hybrid with “upright” leaf architecture and one with “normal” leaf architecture.
  - Planting populations will be changed along each pass.
- Strips will be as wide as at least one combine pass and run the length of the field.
- Interseed the same cover crop mix to all treatment strips when corn reaches V4 stage.
- **Summer 2017**, monitor strips and make notes of cover crop growth throughout the season.
- **Fall 2017**, harvest corn from strips separately.
- Collect aboveground biomass samples of cover crops from strips prior to winter dormancy.
- **Spring 2018**, collect aboveground biomass samples of cover crops from strips prior to termination.
- Turn in data to Practical Farmers of Iowa at the end of the project.

35K	Normal	Upright	Upright	Normal	Normal	Upright	Upright	Normal
32.5K								
30K								
Planting population	REP 1	REP 2		REP 3		REP 4		

**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 \$550 compensation at conclusion of the project in 2018.

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