### 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.

<table>
<thead>
<tr>
<th>35K</th>
<th>Normal</th>
<th>Upright</th>
<th>Upright</th>
<th>Normal</th>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Planting population</th>
<th>REP 1</th>
<th>REP 2</th>
<th>REP 3</th>
<th>REP 4</th>
</tr>
</thead>
</table>

### 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.

**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.*