**Objective:** Determine the effect of supplemental sulfur fertilizer on corn grain yield and profitability.

**Hypothesis:** Sulfur fertilizer application will improve corn yield; more than enough to pay for fertilizer application.

**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:**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur</td>
<td>Apply sulfur fertilizer (20 lb S/ac) to corn prior to emergence.</td>
</tr>
<tr>
<td>Control</td>
<td>Typical nutrient program that comprises little to no sulfur.</td>
</tr>
</tbody>
</table>

- 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.
- Strips must be at least as wide as one combine pass and should run the length of the field.
  - Example layout:

```
  Sulfur | Control | Sulfur | Control | Sulfur | Sulfur | Control |
  REP 1  | REP 2   | REP 3  | REP 4   |
```
Data to Collect (cooperator):
- Sulfur soil test levels
  - Measured ahead of trial from 2.5 ac grid sampling.
- Corn grain yield
  - Harvest and record yield and moisture from each strip.

Photo List (cooperator):
- Corn growing in strips (throughout season).
  - Depict any observable differences from side-by-side strips.
- Cooperator in field trial.

Project Timeline:

<table>
<thead>
<tr>
<th>Spring</th>
<th>Summer</th>
<th>Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant corn to entire field.</td>
<td>Take photos.</td>
<td>Harvest corn from all strips.</td>
</tr>
<tr>
<td>Apply sulfur to strips</td>
<td></td>
<td>Turn in data and photos.</td>
</tr>
<tr>
<td>prior to corn emerging.</td>
<td></td>
<td>Take post-project survey.</td>
</tr>
<tr>
<td>Take photos.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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