



**RESEARCH  
 PROTOCOLS**

**Sulfur Fertilizer for Corn**

**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.

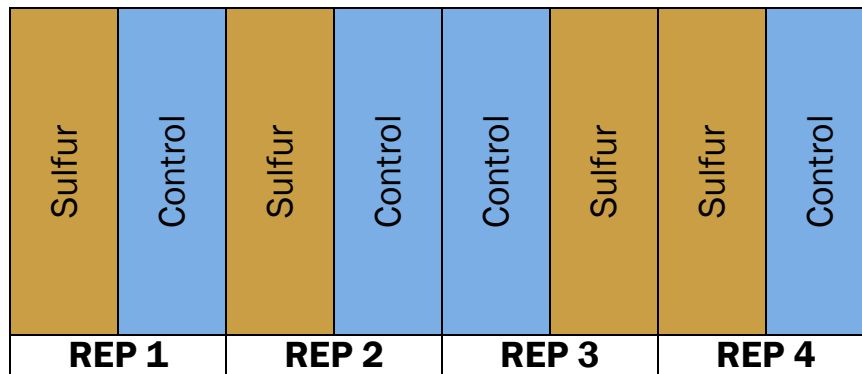
**Practical Farmers of Iowa will:**

- 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:**

Treatment	Description
Sulfur	Apply sulfur fertilizer (20 lb S/ac) to corn prior to emergence.
Control	Typical nutrient program that comprises little to no sulfur.

- 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:



**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:**

<b>Spring</b>	<b>Summer</b>	<b>Fall</b>
<ul style="list-style-type: none"><li>• Plant corn to entire field.</li><li>• Apply sulfur to strips prior to corn emerging.</li><li>• Take photos.</li></ul>	<ul style="list-style-type: none"><li>• Take photos.</li></ul>	<ul style="list-style-type: none"><li>• Harvest corn from all strips.</li><li>• Turn in data and photos.</li><li>• Take post-project survey.</li></ul>

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