

**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:

RESEARCH

PROTOCOLS

- 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.

**Sulfur Fertilizer for Corn** 

## **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:

Sulfur	Control	Sulfur	Control	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:**

Spring	Summer	Fall
<ul> <li>Plant corn to entire field.</li> <li>Apply sulfur to strips prior to corn emerging.</li> </ul>	Take photos.	<ul> <li>Harvest corn from all strips.</li> <li>Turn in data and photos.</li> <li>Take post-project survey.</li> </ul>
Take photos.		

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