

Scurf Control in Sweet Potato

Objectives:

1. Determine whether multiple tillage passes (to decrease soil organic matter) is an effective control of scurf in Beauregard sweet potatoes. Scurf harms marketability and storage life of sweet potatoes.

Farmer-cooperator will:

- Follow Research Protocols for study
- **Take photos** throughout the project.
- Keep in contact with PFI with updates and questions
- Turn in all data by October 2017

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 cooperator payment at conclusion of project year.*

RESEARCH PROTOCOL

Crops:

Beauregard sweet potato

Transplanting and In-field practices: Practices should be consistent for both varieties and all plots.

Treatment: Treatment plots will be tilled three times (April 15, April 25, May 10) before black plastic is applied on May 10 and sweet potato slips are transplanted. **Control plots will be tilled once**, on May 10, prior to black plastic and transplanting.

Please provide PFI with the following info:

Planting date:

In-row spacing (inches):

Between row spacing (inches):

Mulch (Y/N and type):

Irrigation (Y/N and type):

Soil amendments/inputs used (product and rate):

Field Layout:

- treatment plot lengths can be 10-20 plants depending on farm needs.
- Four replications of each set is preferred, three is ok.

Example Plot Layout

Rep1	Rep2	Rep3	Rep4
3x Till	1x Till	3x Till	1x Till
1x Till	3x Till	1x Till	3x Till

Harvest and Data Collection:

- **Take photos of soil in plots prior to tillage and after May 10 tillage pass** to visually determine level of remaining residue.
- Harvest tubers by plot.
- Separate tubers that are prime market size – count and weigh by plot.
- Sight-test and count tubers with scurf, by plot.
- **Take photos of treatment groups and the plants in the field.**
- See **excel workbook** for pick sheets, scoring, and data entry.

Data Analysis

Data analysis will be done at PFI by Liz Kolbe and presented in a Research Report at the Cooperators' Meeting.

Sweet Potato Harvest, 2017							
Harvest Date	Treatment (3x, 1x till)	Rep	w/Scurf Plot Weight (lbs)	w/Scurf Plot Count	Marketable Plot Weight (lbs)	Marketable Plot Count	notes