

Horticulture

Research Protocols

Mulch and Foliar Feed Trial in Butternut Squash and Tomato

Objectives: 1. Determine if yields of butternut squash and tomatoes are different between plots using plastic mulch and corn stalk mulch. 2. Determine if yields of butternut squash and tomatoes are different between plots using foliar feeding and not using foliar feeding.

Farmer-cooperator will:

- **Take photos** throughout the project.
- Keep in contact with PFI with updates and questions
- **Spring 2016**, layout plots and lay plastic mulch and corn stalk mulch for tomatoes.
- **Spring 2016**, transplant tomatoes for project, set up foliar feed according to project design.
- **Summer 2016**, layout plots and lay plastic mulch and corn stalk mulch for butternut squash.
- **Summer 2016**, transplant butternut squash and set up foliar feed according to project design.
- **Summer 2016**, keep harvest data for tomatoes in provided Excel workbook.
- **Fall 2016**, keep harvest data for butternut squash in provided Excel workbook.
- Turn in all data by October 2016 (if fall crops, can be later)

Practical Farmers of Iowa will:

- *Help set up protocol including Excel workbook for data entry, provide support as needed.*
- *Analyze data and publish results in a PFI research report, on PFI website, and potentially other outlets.*
- *Provide \$550 cooperator payment at conclusion of project year.*

Example design for squash (F=foliar feed, NF=no foliar feed):

	Rep 1		Rep 2		Rep 3	
Plastic	F	NF	NF	F	NF	F
Corn	NF	F	F	NF	F	NF
Plastic	NF	F	NF	F	F	NF
Corn	F	NF	F	NF	NF	F
	Rep 4		Rep 5		Rep 6	

Example design for tomatoes (F=foliar feed, NF=no foliar feed):

	Rep 1		Rep 2	
Plastic	F	NF	NF	F
Corn	NF	F	F	NF
Plastic	NF	F	NF	F
Corn	F	NF	F	NF
	Rep 3		Rep 4	

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