

Sheep Grazing Cover Crop for Better Brassica Yield

Objectives:

1. Determine if grazing sheep on a cover crop prior to a brassica crop affects yield, compared to brassicas following an un-grazed cover crop.

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

Timeline:

April 2017: plant cover crop

May 2017: graze sheep in treatment plots. Sheep must be moved around control plots; not through!

Late summer 2017: transplant brassica crop to treatment and control plots

October 2017: harvest brassica crop and record data. Turn in data to PFI.

Transplanting and In-field practices:

Each farmer can decide their own in field practices, but should record what was done and when. Practices should be consistent for both varieties and all plots.

Field Layout:

- treatment plot lengths will be determined by fencing and space available.
- Three replications are preferred.
- Sheep must be off the field 90 days prior to crop harvest.

Example Plot Layout

Rep 1		Rep 2		Rep 3	
Brassica	Brassica	Brassica	Brassica	Brassica	Brassica
Cover	Cover + Graze	Cover + Graze	Cover	Cover	Cover + Graze

Harvest and Data Collection:

- See **excel workbook** for pick sheets and data collection required for cover crop, grazing, and brassica crop.
- Harvest **brassica crop** from plots as mature. **Record weight and count** by plot.

Take photos of sheep grazing cover and brassica crop in the field.

Data Analysis

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

Sheep and Cover Info

Plot dimensions;	
cover crop planting date:	
cover crop mix %:	
# of days grazed per plot:	
Grazing dates :	
number of ewes grazed:	
number of lambs grazed:	
cover crop termination date:	

General brassica Info

Variety used:	
transplant date:	
# plants / plot:	
w/in row spacing:	
row spacing:	
bed configuration notes:	
irrigation (Y/N and type):	
mulch (Y/N and type):	

2017 Brassica Harvest					
Harvest Date	Treatment or Control	Rep	Plot Head Weight (lb)	Plot Head Count	notes