

Horticulture

Research Protocols

Quick Turnaround Cover Crops

Objectives: 1. Evaluate performance of cover crop species and mixes as quick-turnaround covers in the field and the high tunnel (% cover, weed suppression, biomass). 2. Determine if quick-turnaround cover crops affect yield of the following cash crop.

Farmer-cooperator, Rob Faux, will:

- Take photos throughout the project and send to PFI for use in research report and blog.
- Keep in contact with PFI with updates and questions.
- **Summer 2015**, establish cover crops in randomized, replicated plots as in diagram below.
 - In high tunnel, plant cover crops in plots in June.
 - In field, first harvest garlic in July, then till and plant cover crops in plots, irrigate to establish.
- After 6 weeks of growth, sample weed pressure and cover crop ground cover and aboveground biomass prior to terminating cover crop in both high tunnel and field.
- Plant late-season cash crops in both high tunnel and field.
- **Fall 2015**, record yield of fall crop in both high tunnel and field from each plot separately.
- Turn in all data by October 2015.

Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Field Pea	No cover (control)	Millet	Buckwheat	Clover
Clover	Field Pea	No cover (control)	Millet	Buckwheat
Buckwheat	Clover	Buckwheat	No cover (control)	Millet
Millet	Buckwheat	Clover	Field Pea	No cover (control)
No cover (control)	Millet	Field Pea	Clover	Field Pea

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.
- Reimburse costs of seed.
- Provide \$550 cooperator payment at conclusion of project year.