

Horticulture

Research Protocols

Summer Squash follow Winter Rye

Objectives: Determine the effect on summer squash yield from terminating a cereal rye cover crop by either mowing then tilling prior to planting squash or delaying mowing rye to a later stage prior to planting squash.

Farmer-cooperator, Alice McGary, 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.
- **Fall 2014**, seed cereal rye cover crop.
- **Summer 2015**, sample cover crop for aboveground biomass prior to terminating.
- Establish a minimum of 4 replications before planting squash as shown in the diagram below with randomized and replicated plots of:
 - Cereal rye terminated by mowing followed by tilling (mow-till)
 - Cereal rye terminated by delayed mowing (delay mow)
- Plant squash in plots.
- Harvest squash from each plot separately: record number of marketable fruits harvested per plot, total weight of marketable fruits harvested per plot, number of culls per bed and total weight of culls harvested per bed.
- Turn in all data by October 2015.

Pair 1	Pair 2	Pair 3	Pair 4
Mow-till	Delay mow	Delay mow	Mow-till
Delay mow	Mow-till	Mow-till	Delay mow

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 cost of cover crop and squash seed.
- Provide \$550 cooperator payment at conclusion of project year.