

# Horticulture

## Research Protocols

### Summer Lettuce Germination Trial, 2018

#### Objectives:

1. Determine if pelleted or un-pelleted seed Magenta lettuce seed perform differently in a mid-summer germination trial.
2. The trial will be split into trays covered with a damp white sheet, and trays left un-covered.

#### 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 September 2018

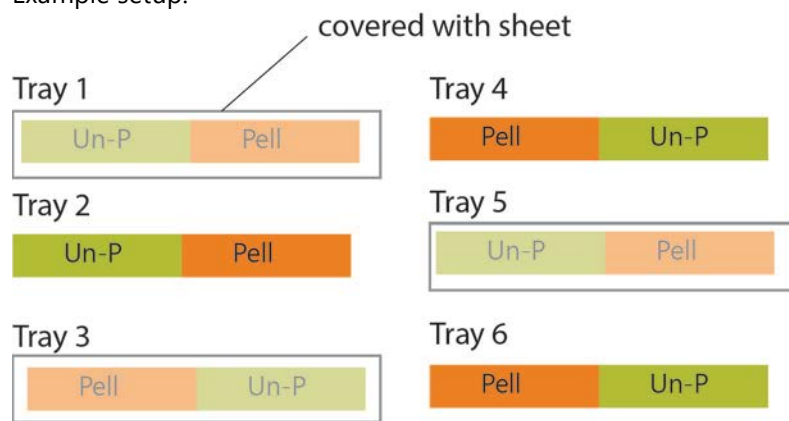
#### Practical Farmers of Iowa will:

- *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.*

#### Trial Design:

- Please provide PFI with seeding info as requested in the excel workbook.
- Farmers will seed six, 120-block trays with Magenta seed. One side of each tray will be un-pelleted seed, the other side of each tray will be pelleted seed (60 pelleted and 60 un-pelleted seed in each tray).
- Trays will be set in a randomized order on the greenhouse table.
- 3 of the 6 trays will be covered with a damp white sheet during germination; the other 3 will be left uncovered.
- Provide schematic with cardinal directions of actual trial setup.

Example setup:



**Data Collection:**

- Record **germination rate** (count soil blocks/cells that did not germinate, by plot (by seed type in each tray).
- Record **emergence rate** - record days to first true leaves of 10 plants in each plot.
- Record **evenness** of germination. Record height and leaf number of 10 plants in each plot when ready to transplant.

**Data Analysis**

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