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:

```
<table>
<thead>
<tr>
<th>Tray 1</th>
<th>Tray 2</th>
<th>Tray 3</th>
<th>Tray 4</th>
<th>Tray 5</th>
<th>Tray 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Un-P</td>
<td>Pell</td>
<td>Pell</td>
<td>Pell</td>
<td>Un-P</td>
<td>Pell</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

covered with sheet
**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.

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