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.

<table>
<thead>
<tr>
<th>Pair 1</th>
<th>Pair 2</th>
<th>Pair 3</th>
<th>Pair 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mow-till</td>
<td>Delay mow</td>
<td>Delay mow</td>
<td>Mow-till</td>
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<tr>
<td>Delay mow</td>
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<td>Mow-till</td>
<td>Delay mow</td>
</tr>
</tbody>
</table>

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.

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