Objective: Determine which cauliflower variety: Snow Crown, Amazing, or Denali produces the highest yield and quality fall cauliflower in Iowa. Skywalker can be trialed as an optional variety.

Hypothesis: Some farmers expect Snow Crown to produce the most curds, and best quality curds.

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 November 2019

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.

Project Design:
- Each farm will set up a randomized, replicated trial with 1-2 successions. Each succession will have 4 replications.
- 3 or 4 varieties x 4 replications (per succession)
  - Snow Crown, Amazing, Denali, (Skywalker, optional)
  - At least 10 plants/plot

Example layout:

<table>
<thead>
<tr>
<th>Rep1</th>
<th>Rep2</th>
<th>Rep3</th>
<th>Rep4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snow Crown</td>
<td>Amazing</td>
<td>Denali</td>
<td>Snow Crown</td>
</tr>
<tr>
<td>Amazing</td>
<td>Denali</td>
<td>Snow Crown</td>
<td>Amazing</td>
</tr>
<tr>
<td>Denali</td>
<td>Snow Crown</td>
<td>Amazing</td>
<td>Denali</td>
</tr>
</tbody>
</table>

Data to Collect (see excel workbook):
- At harvest, Score plot for color, riciness/fuzziness, curd compactness, and curd bracts.
- Harvest cauliflower as mature, keep records by plot and harvest date. Record weight, diameter of three curds, and count harvested by plot.
- Take photos of harvested curds (each variety), and the plants in the field.
- See excel workbook for pick sheets, scoring, and data entry.
- More info on cauliflower grading: Cole Crop Disorders: https://agdev.anr.udel.edu/weeklycropupdate/?p=2502
The terms of this Research Protocols document are subject to the terms of the individual Research Cooperator’s Memorandum of Understanding agreement with PFI. To the extent these terms may differ or conflict, the Memorandum of Understanding shall control.

### Project Timeline:

<table>
<thead>
<tr>
<th>March</th>
<th>April - Oct.</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Edit/Approve Protocol</td>
<td>• Layout plots</td>
<td>• Turn in data and photos</td>
</tr>
<tr>
<td>• Complete MOU &amp; pre-survey</td>
<td>• Update other cooperators and PFI with progress of trial</td>
<td>• Take post-survey</td>
</tr>
<tr>
<td>• Liz will order seed</td>
<td>• Conduct trial and collect data! Take photos!</td>
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<td></td>
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</tbody>
</table>

**Contact:** Liz Kolbe, Horticulture and Habitat Programs Manager, (515) 232-5661; liz@practicalfarmers.org