

Horticulture

Research Protocols

Cauliflower Variety Trial

Objectives:

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

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 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.*

RESEARCH PROTOCOL

Crops:

Varieties: Snow Crown, Amazing, Denali, with the option of adding Graffiti.

Transplanting and In-field practices:

Each farmer can decide their own in field practices, but should record what was done and when, as requested in the excel workbook. Practices should be consistent for both varieties and all plots.

Field Layout:

- treatment plots should have at least 10 plants (10 of each variety in each rep), but can have more depending on farm needs.
- Four replications of each variety is preferred, three is ok.
- Two successions is preferred; a single planting is ok (still need three or four reps in each succession).
- **Please provide PFI with planting info as requested in the datasheet.**

Example Plot Layout (for 4 varieties)

Rep1	Rep2	Rep3	Rep4
Snow Crown	Amazing	Denali	Skywalker
Amazing	Snow Crown	Skywalker	Denali
Denali	Skywalker	Snow Crown	Amazing
Skywalker	Denali	Amazing	Snow Crown

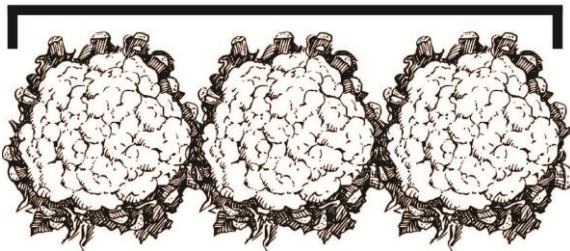
Example Plot Layout (for 3 varieties)

Rep1	Rep2	Rep3	Rep4
Snow Crown	Amazing	Denali	Snow Crown
Amazing	Denali	Snow Crown	Amazing
Denali	Snow Crown	Amazing	Denali

Harvest and Data Collection:

- 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 varietal groups, 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>

diameter of 3 curds



Data Analysis

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