



RESEARCH PROTOCOLS

Cabbage Variety Trial

Objective: Determine which cabbage variety: Farao, Red Express, Tiara, Charmant, Red Jewel or Famosa, produces the highest yield and quality summer (June-July) cabbage in Iowa.

Hypothesis: Farao performed well in 2019, and will be the variety we measure against for consistent production and quality.

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 2020

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 four replications of the six varieties.
- 6 varieties x 4 replications = 24 plots
 - Farao, Red Express, Tiara, Charmant, Red Jewel or Famosa
 - At least 10 plants/plot

Example layout:

Rep1	Rep2	Rep3	Rep4
Red Ex	Famosa	Red Jewel	Charmant
Farao	Red Ex	Famosa	Red Jewel
Tiara	Farao	Red Ex	Famosa
Charmant	Tiara	Farao	Red Ex
Red Jewel	Charmant	Tiara	Farao
Famosa	Red Jewel	Charmant	Tiara

Data to Collect (see excel workbook):

- At harvest, Score plot for splitting, black rot, cabbage worms.
- Harvest cabbage as mature, keep records by plot and harvest date. Record weight and count harvested by plot.
- Take photos of harvested heads (each variety), and the plants in the field.
- See excel workbook for pick sheets, scoring, and data entry.

Project Timeline:

<ul style="list-style-type: none">• Review research protocol• Complete MOU and pre-project survey
<p>April</p> <ul style="list-style-type: none">• ~April 20: seed in greenhouse <p>June</p> <ul style="list-style-type: none">• ~June 1: plant out to field into randomized trial design.• Take photos: Early-season field-shot of trial <p>July - August</p> <ul style="list-style-type: none">• Harvest cabbage as mature, record yield and quality data by plot.• Take photos!<ul style="list-style-type: none">○ Groups of cabbages at harvest (in bins, etc)○ Representation photos of pests, etc.○ Farmer harvesting○ Farmer measuring or entering data!
<ul style="list-style-type: none">• Enter data and photos to PFI's google site: https://sites.google.com/practicalfarmers.org/research/home.• Complete post-project survey.

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