PRACTICAL FARMERS OF IOWA
COOPERATORS' PROGRAM Farmer-Led Research

RESEARCH PROTOCOLS

One-Cut Lettuce Variety Trial

Objective: Compare yield and quality of Salanova and EazyLeaf varieties on two vegetable farms. Salanovas are typically high-performing but expensive, not certified-organic, and proprietary. EazyLeaf are more widely available, certified-organic, and cheaper. Is Salanova worth the additional cost?

Hypothesis: Salanova will outperform EazyLeaf in yield and other characteristics, especially during summer harvest, which will justify additional seed cost.

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:

- 3 successions (spring, summer, fall)
- Each farm will set up a randomized, replicated trial with 3 successions (spring, summer, fall); each succession will have 4 replications.
- **Scheibel**: 6 varieties x 4 replications (24 plots per succession)
    - Salanovas: Red Sweet, Red Butter, Red Oakleaf
    - EazyLeaf: Brentwood, Buckley, Stanford
    - 12 plants/plot (288 plants/succession; 360 seeds/succession for starting)
    - 180 seeds/variety for entire trial
    - **Data Collected**: Yield (salad mix), Flavor (spit test), tip burn, bottom rot, bolting, Brix reading for summer succession.
        - Re-cut data: Time to re-cut, recut yield, flavor, tip burn, bolting, bottom rot.

Example layout:

Rep 1	Rep 2	Rep 3	Rep 4
Red Sweet	Stanford	Red Butter	Buckley
Brentwood	Red Sweet	Buckley	Red Oakleaf
Red Butter	Brentwood	Red Oakleaf	Stanford
Buckley	Red Butter	Stanford	Red Sweet
Red Oakleaf	Buckley	Red Sweet	Brentwood
Stanford	Red Oakleaf	Brentwood	Red Butter

- **Yagla**: 4 varieties x 4 reps (16 plots per succession)
    - Salanovas: Red Butter, Green Sweet
    - EazyLeaf: Ezrilla, Stanford
    - 8 plants/plot (128 plant/succession; 144 seeds/succession for starting)
    - 108 seeds/variety for entire trial
    - **Data Collected:** Yield (whole heads), Flavor (spit test), tip burn, bottom rot, bolting, Brix reading for summer succession.

Example Layout:

Rep 1	Rep 2	Rep 3	Rep 4
Green Sweet	Stanford	Red Butter	Ezrilla
Ezrilla	Green Sweet	Stanford	Red Butter
Red Butter	Ezrilla	Green Sweet	Stanford
Stanford	Red Butter	Ezrilla	Green Sweet

Project Timeline:

March	April	June	August	October	November
• Edit/Approve Protocol • Complete MOU & pre-survey	• Start S1 seeds • Prepare data-entry system	• Harvest S1, record data • Start S2 seeds, record date	• Harvest S2, record data • Start S3 seeds, record date	• Harvest S3, record data	• Turn in data and photos • Take post-survey

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