



RESEARCH PROTOCOLS

Organic Control of Vine Borer in Winter Squash

Objective: Which method provides the best control for vine borers in winter squash?

Hypothesis: ??

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 three replications of four or five treatments on their preferred winter squash variety.
- **Slocum:**
 - Red Kuri squash, 8 plants/plot
 - Treatments: Control (no treatment), Newspaper, Bt Injection, Row Cover
 - 4 treatments x 3 reps = 12 plots
 - 12 plots x 8 plants per plot = 96 plants total for trial
- **Quee:**
 - Blue Hubbard squash, 8 plants/plot
 - Treatments: Control (no treatment), Newspaper, Bt Injection, Row Cover, Spinosad
 - 5 treatments x 3 reps = 15 plots
 - 15 plots x 8 plants per plot = 120 plants total for trial
- **Data Collected:**
 - Scouting: Number of plants alive after 40 days and 80 days.
 - Harvest: Number of fruit
 - Complete excel workbook with information on treatment and planting for each farm.

- **Example Trial Layout:**

Rep 1	Rep 2	Rep 3
Control	Row Cover	Newspaper
Newspaper	Control	Bt Injection
Bt Injection	Newspaper	Control
Row Cover	Bt Injection	Row Cover

Project Timeline:

March	April - October	November
<ul style="list-style-type: none"> • Edit/Approve Protocol • Complete MOU & pre-survey 	<ul style="list-style-type: none"> • Start seed • Layout plots, Prepare treatments, Transplant • Conduct trial and collect data! Take photos! <ul style="list-style-type: none"> • 40-day scout, 80 day scout by plot • Record harvest count by plot • Update other cooperators and PFI with progress of trial 	<ul style="list-style-type: none"> • Turn in data and photos • Take post-survey

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