

# Horticulture

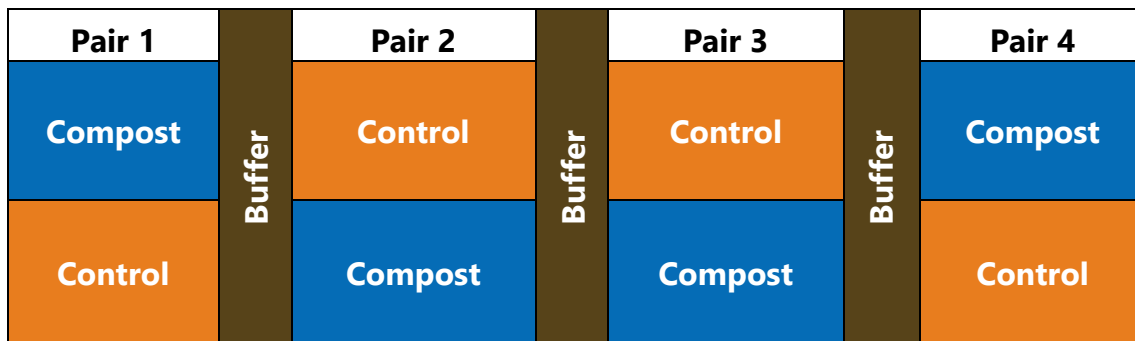
## Research Protocols

### Compost Extract Crop Yield Response, Year 2

**Objectives:** 1. Determine if bi-weekly soil drench applications of compost extract affects yield of lettuce and/or carrot. 2. Determine if bi-weekly soil drench applications of compost extract affects deg. Brix of lettuce and/or carrot. 3. Inform best practices for storing compost, steeping extract, and applying extract drench to soil.

**Farmer-cooperators, Rob Faux, Siobhan Danreis, and Jason Jones will:**

- Take photos throughout the project and send to PFI for use in Research Report and blog.
- Keep in contact with PFI with updates and questions.
- **Spring 2015**, start lettuce seedlings and transplant to field or plant carrots when appropriate.
- Establish a minimum of 4 replications at the time of transplanting or planting with 4-ft buffers separating replications as shown in the diagram below with randomized and replicated beds of:
  - No compost extract (control)
  - Compost extract (compost)
- Apply compost extract to appropriate beds every two weeks through the growing season.
- **Summer 2015**, make note of all management practices throughout the growing season.
- Prior to harvest, collect plant tissue samples from each bed for Brix analysis.
- Harvest from each plot separately: for lettuce, record number of lettuce heads harvested per plot and total weight of harvested crop per plot. For carrots, record the total weight of harvest per plot, and the weight, length, and shoulder width of a 10-carrot sample from each plot.
- Turn in all data by October 2015.



**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.
- Reimburse costs of compost and seed.
- Provide \$550 cooperator payment at conclusion of project year.