PRACTICAL FARMERS OF IOWA
COOPERATORS' PROGRAM Farmer-Led Research

# RESEARCH PROTOCOLS

## Ginger production and variety trial in covered and uncovered beds

**Objective:** Determine if ginger yield or quality is different by seed variety, and to determine if high tunnels or row covers impact ginger yield.

**Hypothesis:** Growers expect that the ginger yield will not be significantly different when grown under a cover, though they do expect better yield from the Hawaiian seed ginger.

### 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 Nov. 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:

- Paired, randomized, replicated trial of two varieties of ginger in both indoor (or covered) and outdoor settings.
    - Varieties compared: Organic Peruvian Yellow (from Puna Organics and Biker Dude, Hawaii), and organic VNS ginger (purchased from New Pioneer Co-op grocery store).
    - Environment comparison: High tunnel (or under row cover, at some farms), versus outside.

Layout example for the ginger production and variety trial in covered and uncovered beds

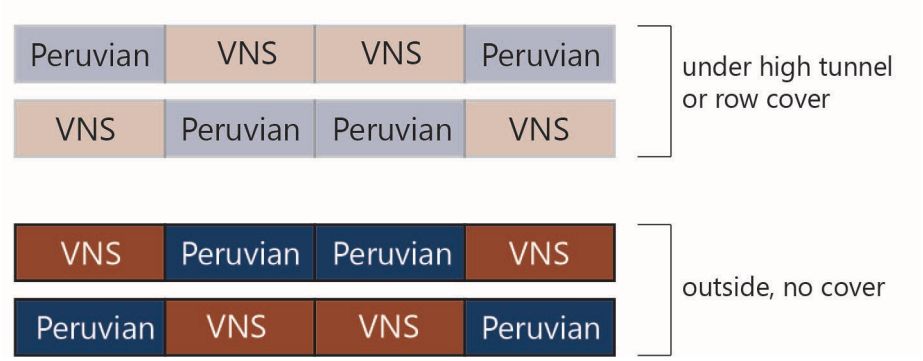

**Photo List:**
- preparing seed ginger
- sprouted ginger ready to be planted out
- early-season field-shots of trial
- mature plants in trial
- ginger roots during harvest, in bins, etc.
- harvest-time with farmer in the photo
- bonus for photo of farmer entering data in the field!

- **Data Collected:**
  - Dates of: pre-sprouting, sprouting, planting out, harvest.
  - Harvest data **by plot**: Number of plants harvested (is this discernible with ginger?), rhizome weight, rhizome firmness, rhizome color, rhizome taste.

## Project Timeline

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| • Review research protocol<br>• Complete MOU and pre-project survey |
| **March**<br>• Prepare 2-oz seed pieces and begin pre-sprouting by mid-March (March 16). Pre-sprout by holding seed pieces at 75-80 degrees in a damp medium (peat, coir, soil mix)<br>**April**<br>• April 5 (3 weeks after pre-sprouting), move seed pieces to 1020 trays (20 seed pieces/tray) for sprouting. Grow in warm spot with light.<br>**May**<br>• Prepare beds and plant out when soil temps remain over 70 degrees (around May 16). Rows should be planted 12-18 in. apart, with 12 in. spacing within the rows.<br>**June - October**<br>• Manage crops normally.<br>**October**<br>• Harvest ginger rhizomes; record data in accordance with data collection sheet. |
| • Enter data and photos (see photo shot list, above), to PFI's google site: https://sites.google.com/practicalfarmers.org/research/home.<br>• Complete post-project survey. |

**Contact:** Liz Kolbe, Horticulture and Habitat Programs Manager, (515) 232-5661; liz@practicalfarmers.org