This presentation covers

- How to make good use of your hoophouse when it’s hot
  - Remove plastic, move hoophouse, shade, increase airflow, storage.
  - Grow crops
    - Warm weather food crops
    - Cut flowers
    - Seed crops
    - Cover crops
  - Cure or dry crops
  - Improve the soil
    - Solarize
    - Desalinize

- Crop rotations and scheduling
- Warm weather pests including nematodes
- Resources and my contact info

I live and farm at Twin Oaks Community, in central Virginia. We’re in zone 7, with an average last frost April 30 and average first frost October 14. Our goal is to feed our intentional community of 100 people with a wide variety of organic produce year round.

30’ x 96’ FarmTek ClearSpan gothic arch hoophouse. We put it up in 2003, and like many growers we had the primary goal of growing more winter greens and early tomatoes and peppers.

Our hoophouse is divided longitudinally into five 4’ beds and a 2’ bed along each edge. Our paths are a skinny 12” wide, as we wanted to maximize the growing space.

**Warm Weather Food Crops**
- Suitable candidates
  - crops you’d like earlier
  - crops that grow in warmer climates
  - crops that grow better in drier climates
  - ideally, crops that are not in the same families as your main crops in other seasons.
- Tomatoes, peppers, eggplant, cucumbers, squash and zucchini, early green beans, cowpeas, soup beans, edamame, melons, baby ginger, turmeric, galangal, jicama (yam bean), peanuts.

**Choosing shadecloth**
- Our shadecloth is 34’ x 96’, about the same size as the footprint of the hoophouse, knitted polyethylene 50% shade from Gemplers, $372 in 2004.
- Shadecloth is available
  - Woven or knitted: knitted fabric is stronger, lighter in weight, more flexible, and doesn’t unravel when cut.
  - Polyethylene, PVC or polypropylene: Polypro is longer lasting, but only available woven. Avoid PVC as it will degrade the poly sheeting of the hoophouse.
  - In a range of shade factors. 40% is recommended for vegetables, 50% for flowers and 60% for cool weather vegetables in hot weather.
  - White, black or other colors

Here’s our plan for summer 2008. We have 7 longitudinal beds, A-G. Beds A and G are the 2’/60cm wide edge beds.
<table>
<thead>
<tr>
<th>Bed</th>
<th>Date</th>
<th>Task</th>
<th>Date</th>
<th>Task</th>
<th>Date</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 2’</td>
<td>2/1</td>
<td>Sow snap peas at back</td>
<td>7/12</td>
<td>Pull snap peas, sow cowpeas</td>
<td>10/15-10/25</td>
<td>Pull cowpeas, spread compost, rake in. Transplant senposai. Sow radishes, scallions</td>
</tr>
<tr>
<td>B 4’</td>
<td>4/1</td>
<td>Transplant cucumbers with compost in holes</td>
<td>7/12</td>
<td>Pull cucumbers, sow drying beans</td>
<td>10/23</td>
<td>Pull beans, spread compost, rake in. Transplant kale, chard, mizuna, arugula, yukina savoy. Sow tatsoi, chard</td>
</tr>
<tr>
<td>C 4’</td>
<td>3/15</td>
<td>Transplant tomatoes with compost in holes</td>
<td>7/30</td>
<td>Pull tomatoes, sow buckwheat &amp; soy cover crop</td>
<td>9/8</td>
<td>Pull cover crop (use to mulch peppers); spread compost, rake in. Sow spinach, radish, scallions, bulls blood beets, tatsoi</td>
</tr>
<tr>
<td>D 4’</td>
<td>3/15</td>
<td>Transplant tomatoes with compost in holes</td>
<td>7/30</td>
<td>Pull tomatoes, sow buckwheat &amp; soy cover crop</td>
<td>10/1-10/10</td>
<td>Pull cover crop (use to mulch peppers); spread compost, rake in. Transplant Tokyo bekana, maruba santoh, Chinese cabbage, pak choy, yukina savoy. Sow tatsoi, chard</td>
</tr>
<tr>
<td>E 4’</td>
<td>4/1</td>
<td>Transplant peppers with compost in holes</td>
<td></td>
<td></td>
<td>10/15-10/24</td>
<td>Pull peppers, spread compost, rake in. Transplant lettuce, celery. Sow mizuna, arugula, lettuce mix</td>
</tr>
<tr>
<td>F 4’</td>
<td>4/1</td>
<td>Transplant summer squash with compost in holes</td>
<td>7/22</td>
<td>Pull squash, sow edamame</td>
<td>10/1</td>
<td>Pull remaining edamame for seed. Spread compost, rake in. Transplant lettuce, chard</td>
</tr>
<tr>
<td>G 2’ west</td>
<td>4/1</td>
<td>Transplant ½ bed hot peppers with compost in holes</td>
<td></td>
<td></td>
<td>10/23</td>
<td>Pull peppers, spread compost, rake in. Sow spinach</td>
</tr>
<tr>
<td>G 2’ east</td>
<td>3/2</td>
<td>Sow ½ bed bush beans</td>
<td>6/2</td>
<td>Pull beans, sow edamame</td>
<td>11/5</td>
<td>Pull edamame, spread compost, rake in. Sow onions</td>
</tr>
</tbody>
</table>

**Books**
- High Tunnels: Using Low Cost Technology to Increase Yields, Improve Quality, and Extend the Growing Season by Ted Blomgren, Tracy Frisch and Steve Moore. It was published by the University of Vermont Center for Sustainable Agriculture, with funding from SARE. $15 or on the web: [http://www.uvm.edu/sustainableagriculture/hightunnels.html](http://www.uvm.edu/sustainableagriculture/hightunnels.html)
- The New Seed-Starters Handbook by Nancy Bubel, Rodale Press,

**Articles**
- *Growing For Market* May 2005 has an article by Steve Moore on summer hoophouse use in PA.
- *Growing For Market* June 2008 has an article I wrote “The Hoophouse in Summer”
Growing For Market February and March 2009 Seed Growing articles
Growing For Market August 2008 and November 2011 Ginger

Web Resources
- The HighTunnels website has information on construction, warm weather crops and much else: http://hightunnels.org/for-growers/
- The Association of Specialty Cut Flower Growers http://ascfg.org/
- ATTRA www.attra.ncat.org has a lot of good publications on many aspects of sustainable and organic agriculture.
- Soil Solarization Homepage: http://agri3.huji.ac.il/~katan
- Soil Solarization University of California: http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74145.html
- Saving Our Seeds website has information on isolation distances, seed processing techniques, where to get manuals on growing specific seeds, and links to more information: www.savingourseeds.org
- Garden Medicinals and Culinaries sells manuals on seed growing and processing: https://www.gardenmedicinals.com/

Supplies
- Robert marvel Plastics for Solaroof: www.robertmarvel.com
- Shade Cloth and grommets: Gemplers www.gemplers.com or www.pakunlimited.com or GreenTek, Inc http://www.green-tek.com/

Resources for Ginger and Turmeric
- Alison and Paul Wiediger http://aunaturelfarm.homestead.com/High-Tunnel-Ginger.html
- Puna Organics and Biker Dude to buy seed ginger in November http://www.hawaiianorganicginger.com/how-to-order Turmeric and galangal also available
- Growing For Market August 2008, November 2011
- Melissa Bahret oldfriendsfarm@vegemail.com

Pam Dawling, Twin Oaks Community, 138 Twin Oaks Road, Louisa, VA 23093
www.twinoaks.org, SustainableMarketFarming.com facebook.com/SustainableMarketFarming