



Hoophouse Production

Celia Barss
Cabin Branch Organic Farm

Cabin Branch Organic Farm

- Began Fall 2015
- A small, one-acre certified organic market garden- currently in Elgin
- Additionally, a three-year organic transition of a larger 16-acre parcel in Hopkins.
- Selling to restaurants and a small natural food store
- Immediately set about constructing hoophouses
- 2- 28'x100' stationary houses
- 2- 16'x48' "moveable" houses



Woodland Gardens

- Managed from 2004 to early 2015
- 12-acre certified organic vegetable farm.
- Diverse, high-quality, intensive year-round vegetable production.
- 1 acre of covered unheated growing area- Haygrove multi-bay high tunnels, Jaderloon single bay tunnels, Four Season Tools moveable tunnels
- Covered Space became the backbone of consistent, year round production that allowed the farm to flourish.
- Marketing through weekly deliveries to restaurants, farmer's market, and a weekly produce box program in Athens and Atlanta.



Multibay Haygrove High Tunnel vs Single Bay Hoophouse



Moveable Tunnels



The Benefits

- Intensive use of space
- Year-round work space
- Limits loss from weather
- Increased yield per plant: 2-4x in many cases.
- year-round income=worker stability



The Drawbacks

- Optimum growing conditions for everything - disease, weeds
- Increased Labor and Management
- High Upfront Cost
- Maintenance and repair



Crop Planning

Type of Market determines type of production:

- To maintain a consistent and diverse production requires more planning- necessary to sell weekly to restaurants/market/CSA
- Occasional larger volume of fewer crops requires less planning- wholesale

Cool Season Crop Considerations

- **Fast Growers** - arugula, lettuce, radishes, asian greens, salad turnips
- **Medium Growers** - chicories, chard, spinach, kale, kohlrabi, scallions
- **Slow Growers** - beets, carrots, high value flowers (freesia, ranunculus, anemones)



Crop Planning

Determine value of each square foot over time to help pick crops:

- Example- 200 sq. ft. bed should yield \$100/month
- Ideal is still to keep ground planted at all times because it is very valuable real estate due to the cost of your infrastructure

Timing Observations

Think about when things finish up — how to get early warm season crops in on time (tomatoes, etc...)

Slowest growth is mid-dec. through Jan.

Carrots (2.5-4 months) - early Sept.sowing ready mid-November; early Oct. sowing ready for xmas/new year's - plant more to hold over through Jan.; late Nov.-Jan. sowings take 4 months

Salad turnips & lettuce (6-10 weeks)- mid. November lettuce plantings are larger to hold over in January; growth time on turnips really increases after mid-Oct.

Radishes, baby bok choy & arugula (4-6 weeks)- late November arugula sowings should be increased to hold over in January

Chard & kale- continuous picking but need many beds- late November planting of kale ready for mid. January; Sept. planting of chard ready Oct.

Freesia / Ranunculas- early October planting for April



Warm Season Crop Considerations

- tomatoes
- peppers
- cucumbers
- ginger and turmeric
- pole beans
- cover crops



Tomatoes

- variety considerations- specialty greenhouse types offer higher disease resistance and high yields; possibly grafted plants an option for major problems
- Trial heirlooms to figure out what works well in your area
- Pruning is important to increase air flow (disease prevention) and increase tomato size
- Track your production costs- lots of labor if you don't have good systems
- Trellis options- string, fence, stake and weave





Fertility Management

- high inputs when using space intensively
- lots of compost
- soil test to determine fertilizer needs
- feather meal, blood meal, sulfate of potash, kelp meal, azomite
- fertigation- liquid fish and seaweed fertilizer

Pest and Disease Management

- constant observation and timely management
- prevention is ideal
- sanitation- old plant debris can harbor disease
- moisture management- key in winter growing
- ventilation- key in summer growing
- main pests- winter: aphids, vegetable weevil; summer: tomato fruitworm, squash bugs, armyworm...
- diseases- winter: sclerotinia, botrytis; summer: botrytis, powdery mildew, downy mildew
- products used: entrust (spinosad), dipel (BT), pyganic, neem oil, soap, oxidate