MARKET GARDENING: A Participatory Primer Course

Part #1: Introduction

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Market Gardening Images
Outline

• Course Objectives & Format
• Instructor Introduction
• Market Garden Definitions
• Market Garden Images
• Market Garden Concepts
• Future Course Topics
Course Objectives

• Explore a holistic management approach to earning money producing & selling produce

• Overview of sustainable growing methods for higher yield production potential

• Explore useful business & entrepreneurial skills

• Encouragement to be part of Sarasota County’s emerging local food markets
Economic Motivation for Market Gardening

• “Earn $36,000 in a single year from less than one full acre”

• “How to Make $100,000 Farming 25 Acres”
  by B.T. Whatley

• $16,5000: Potential Income in a Hoophouse (24,00 sq ft)
  - You Can Farm: The Entrepreneur’s Guide to Start and Succeed in a Farming Enterprise
Additional Motivations for Market Gardening

• Economic Independence
• Sustainability Awareness
• Life Style Choice
• Spiritual Connection
• Health Consciousness
• Intellectual Stimulation
Example Motivations for Market Gardening

“Natural Farming In The South”
Virtual Farmtour Video

A fresh cut flowers production and marketing farm

Souther Sustainable Agriculture Working Group (SSAWG) - http://www.ssawg.org/
What Aren’t The Objectives?

• Learn growing methods for specific crops with technical instruction. Available resources include:
  – UF/IFAS Small Farm Academy (http://smallfarms.ifas.ufl.edu/)
  – Small Farms & Alternative Enterprises Conferences
  – Future crop production workshops

• Find land/equipment in the county for market gardening. Available resources include:
  • Web-based (e.g., FL Farmlink; FL Market Bulletin)
  • Media-based (e.g., Farmer & Rancher; FL Grower)

Course Format

• It’s a “primer” and exploratory in scope
• It’s participatory

• Use of online resources
  – National Sustainable Ag Information Service (ATTRA) [http://attra.ncat.org/]
  – USDA Sustainable Agriculture Research & Education Program [http://www.sare.org/]
  – UF/IFAS Small Farm & Alternative Enterprise Program [http://smallfarms.ifas.ufl.edu/]
  – eXtension [http://www.extension.org/]
Teaching Approach Based on Lessons Learned in National Small Farm Training Programs

- **Business Planning Courses**
  - Few participants were able to complete a full business plan
  - Many preferred to submit a written “business concept” or idea
  - Many drawn to the course were really at the “pre-venture” stage
  - Many were just beginning to explore the idea of farming as a business
  - Many had successes at personal gardening/farming but had not decided to expand their hobby to a business

New England Small Farm Institute Explorer Program
http://www.smallfarm.org/main/for_new_farmers/
New Directions in National Training for Small Farm Start-Ups

- Ask first the question “Is starting an agricultural business right for you”
- Provide guidance to help focus planning, learning and resource acquisition
- Offer information about local events and contacts for networking
- Recognize that many students will choose not to farm commercially

New England Small Farm Institute Explorer Program
Market Gardening Course
Class Topics Sequence

• #1: Introduction
• #2: Holistic Management
• #3: Business and Marketing Plans
• #4: Crop Production Systems and Planning
• #5: Equipment and Tools; Post Harvest Handling
• #6: Food & Farm Safety and Regulations
• #7: Farmers’ Markets
• #8: Financial Resources & Management
Market Gardening Course
* Optional Activities *

• #9: Farm visits to local market gardens

• #10 Crop production hands-on experience
  – Field
  – Container
  – Hydroponic
  – Greenhouse
Instructor Introduction

Robert Kluson

• **Agriculture Extension**
  – focus on sustainable agriculture & local community food system development
  – team member of UF/IFAS/FAMU Small Farm and Alternative Enterprise Program and
  – member of FL Sustainable Agriculture & Research Education (SARE) Advisory Committee

• **Natural Resources Extension**
  – focus on FL biodiversity conservation
  – applications of farmscaping & FL native wildflowers seed production
  – watershed education
Instructor Introduction
Robert Kluson

• **Academic background**
  – M.S. degree in Agronomy at University of MD
  – Ph.D. program at Center for Agroecology and Sustainable Food Systems (CASFS), UC-Santa Cruz
    • Biointensive, double dug, raised bed gardening
    • Mayan traditional home gardens studies
    • Intercropping and agroforestry research
  – Researcher at University of Puerto Rico-Mayaguez Campus
    • Tropical, small scale agriculture
    • Biological nitrogen fixing crops and trees
Instructor Introduction
Robert Kluson

- **Market Gardening Grower Experience**
  - Knoll Organic Farm, Brentwood, CA
    - 30+ years successful, small farm
    - 10 acres in size
    - growing over 50 cultivars of fruits, vegetables and herbs
    - using agroforestry-based methods of production
    - local direct marketing
    - I worked here part time for 5 years during my Ph.D. academic program
How Does The Knoll ‘Garden’ Grow?

Agroforestry and Multiple Cropping

- Apricot
- Chard
- Garlic
- Radicchio
- Dandelion
- Artichoke
- Olives
- Figs
- Rosemary
- Apricot Olives Figs
- Basil
How Does The Knoll Garden Grow?

Intensive Cover Cropping

Natural Pest Control

Soil “spading” – Not Conventional Tillage
CASFS Farm & Garden

Biointensive, double-dug, raised beds

Apple

Strawberry

Alley and strip cropping
What Is A Market Garden?

• Is it a money making enterprise?

• Is there a role in modern agriculture?
What Is A Market Garden?

- Cash crops and profit focus
- Rural or urban location
- Production attributes
  - Intensive
  - High crop diversity (fruits, vegetables, flowers)
  - Field and/or greenhouse
  - Low volume per crop
  - More manual labor and horticultural techniques
What Is A Market Garden?

• Scale
  – Size - relatively small (e.g., few ac to <1.0 ac)
  – Spatially - small, i.e., located close to customer base
  – Temporally - long, i.e., throughout the local growing season

• Marketing
  – Local
  – Direct
  – Retail

• Synonyms
  – Truck farm
  – Small farm
  – Backyard farm
  – Hobby farm
  - Kitchen garden farm
Market Garden Images

Urban

Rural

Suburban
Market Garden Images

Australia

Cuba

Germany
Meet a Market Gardener in Sarasota County

- **New Morning Farm**
  - Peter Burkard
  - Contact info: 941/351-8297
  - Production Location:
    7614 Linden Lane, Sarasota, FL
    - Less than 1 acre
  - Retail Location:
    Downtown Sarasota Farmers’ Market
  - Food Products: Local Honey, Greens, Lemons, Avocados, Peppers, Flowers
How Does Peter’s Garden Grow?
How Does Peter’s Garden Grow?
How Does Peter’s Garden Grow?
How Does Peter’s Garden Grow?
Meet Market Gardeners Across The Country

http://www.youtube.com/watch?v=3EpTWQWx1MQ

http://cookingupastory.com/show/organic-foods-backyard-agriculture/
http://www.youtube.com/watch?v=ddjA5WW1BsM&feature=related
Background

• History of US Agriculture
  – Settlement land use
  – Science application
  – Commodification and capitalization
  – Surplus production
  – Politics of agriculture
  – Global food trade
  – Sustainability issues

Market garden and small farms for local food systems provide solutions towards community sustainability
Background

• Sustainability Issues of Current US Agriculture
  – Economic issues
  – Environmental issues
  – Social issues
The Current Food System

Sustainability Issues

“Agricultural Supplies”

Food production
(largely technological and
removed from society)

Global Food Distribution
(nonrenewable energy)

Food Preparation and
Consumption
(fast and cheap)

An average food item in the U.S. travels 1,500 miles – up to 25% farther than in 1980

“waste products”
A Sustainable Local Food System

Healthy Food Production
Integrated into Community

Local Food Distribution Channels

Food Preparation and Consumption
(Nutritious and Healthy)

Compost and other products

56 miles travel distance = avg. for locally produced food

27 miles travel distance = avg. for locally produced food
Background

- **Current Status of US Small Farms**
  - USDA definition
    - one that sells less than $250,000 worth of agricultural products (gross receipts) per year
  - 93% of all farms (2.1M in 2002)
  - 63% of all farmland (939 M ac in 2002)
  - decreasing income trend, <40% of “national value” (1998) - approx 50% w/ net losses
Background

• Facts of Small Farmers
  – Average age of American agricultural producers was 55.3 years (2002)
  – 27.2% of agricultural producers were women (2002)
What is the Magnitude of Small Farms in Florida?

Small farm summary for Florida (2009)

- 93% of the total number of farms of 47,463
- 46% of the total acreage of 9,231,000 ac
- 70% have 50 acres or less
- <10 to 428 average acres/farm
- Sales per acre 26% to 68% of that on larger farms
- ~15% of Florida farm production;
  or <\frac{1}{2}\) the level seen nation-wide

Small Farms represent an opportunity to increase agricultural sales in Florida
Profile of Small Farms in Florida

http://www.nass.usda.gov/QuickStats/
Background

• **The Importance of Small Farms**
  – a. Small farms may increase biological diversity of landscapes in several ways
    • i. Diversified cropping systems within a single farm
    • ii. Diversified crops within a region
    • iii. Habitat diversity and consequent non-crop and animal/insect diversity
  – b. Land in financially successful small farms may be preserved from urban and/or industrial farming uses
  – c. Small farms provide varying levels of rural income and economic opportunity for rural residents, communities, and economies
Background

• The Importance of Small Farms (continued)
  – d. Small urban farms and gardens enhance access to fresh foods for urban areas where food security is a problem
  – e. Small farms are part of the cultural heritage of rural and agricultural communities
  – f. Some farmers engage in agriculture as a lifestyle choice. Economic self-determination of rural and disadvantaged communities may be enhanced in small farming and urban gardening situations
Background

• Programs Supporting FL Small Farmers
  – USDA Small Farm Program
  – Sustainable Agriculture Research and Education Program (SARE), USDA
    [http://www.sare.org/index.htm](http://www.sare.org/index.htm)
  – UF/IFAS/FAMU Small Farm and Alternative Enterprise Program
    [http://smallfarms.ifas.ufl.edu/](http://smallfarms.ifas.ufl.edu/)
Market Gardening Economic Opportunity

• Rise in Local Foods Industry
  – In the past two decades farmers' markets in the U.S. have rapidly regained popularity.
  – This trend is part of the response to sustainability issues of the U.S. food production and distribution system.
  – Local foods campaigns and directories

http://www.localharvest.org/
Farmers Markets Statistics

- Numbers have increased to 7,864 in August 2012. This represents a 9.6 percent increase since mid-August 2011.

- Since 1994, when AMS began to track farmers markets, the number of farmers markets nationwide has grown by nearly 6,000.

Source: USDA-AMS-Marketing Services Division

“Economic Potential for Local Agriculture in Sarasota County”

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<th>2002 Data</th>
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<td>Out of town consumed food</td>
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| Agriculture Total Market Value        | 17.8       |
| **Categories:**                       |            |
| Floriculture                          | 8.3        |
| Fruits                                | 4.9        |
| Cattle/calves                         | 3.6        |
| Misc small livestock                  | 1.0        |
| Vegetables                            | N/R        |

Data provided by Ken Meter of Crossroads Resource Center; & by FL Farm Bureau.

Large difference means economic opportunity!
Market Gardening
Economic Opportunity

• **Rise in Organic Foods Industry**
  – 20% annual growth in U.S. Market since 1990
  – $23.6 Billion U.S. Market (2008) or around 3.5% of total food sales in the U.S.
  – 39% of U.S. Population Use Organic Products
  – Organic products are now available in 20,000 natural food stores and 73% of conventional grocery stores of the U.S.
Florida Organic Industry

- In Florida, the organic industry accounts for
  - 12,000 acres,
  - 133 operators,
  - $4 million in farm gate revenue.

(Austin and Chase, 2002; USDA NASS, 2002)

- 2 Organic Distributors
- Meat & produce processing limited

http://www.funandsun.com/1tocf/agriculture/floridaorganicfarms.html
Florida Crop Diversity and Seasonality

Large production potential!

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www.Florida-Agriculture.com
Additional Opportunities for Market Gardening

- ‘Smart Growth’ Land Planning Approaches
e.g., ‘Form-Based Code’ and ‘2050 Plan’ of Sarasota County

Mixed Land Use Along The Transect
Allows for Local Food System Development

More Rural  More Urban
Examples of Market Gardening Opportunities in Local Food System Development
Smart Growth Integrated Land Planning
Smart Growth Integrated Land Planning
Smart Growth Integrated Land Planning

VEGETABLE GARDENS

More Rural  More Urban
Smart Growth Integrated Land Planning
Smart Growth Integrated Land Planning
Smart Growth Integrated Land Planning

GREEN ROOFS

More Rural  More Urban
Smart Growth Integrated Land Planning

VERTICAL FARMS

More Rural  More Urban
Florida Market Gardener Images

SW FL Small Farm Network Onfarm Events
(http://sarasota.extension.ufl.edu/AG/swfsfn.shtml)

Debbie & Jon Butts
EcoFarm
Hillsborough County

Bill Pischer
Jessica’s Organic Farm
Sarasota County
Florida Market Gardener Images

SW FL Small Farm Network Onfarm Events
(http://sarasota.extension.ufl.edu/AG/swfsfn.shtml)

Denise Muir’s farm tour of her hydroponics growing methods

Kathy Oliver & Susan Bishop
My Mother’s Garden Farm
Hillsborough County

Denise Muir
Rabbit Run Farm
Lee County
Online Reading Assignments

• SARE online training on sustainable ag: Course 1 – access at the webpage:
  http://www.sare.org/Learning-Center/Courses-and-Curricula/National-Continuing-Education-Program

• Tasks One, Two and Three In “Building a Sustainable Business”, pp. 19-101.

• “Holistic Management”
  http://chatham.ces.ncsu.edu/growingsmallfarms/ holistic.pdf