

Growing Styles and Approaches for Urban Farmers
Community Garden Resource Fair 3/27/10
Courtney Tchida

4 Styles & Approaches:

- Organic
- Biointensive
- Permaculture
- Spin Farming

What is Organic Agriculture?

“An ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony.”

USDA National Organic Standards Board (NOSB) definition, April 1995

Where did organic agriculture come from?

- Sir Albert Howard 1940's
- J.I. Rodale 1950's.
- Roots in Rudolf Steiner's Biodynamic Agriculture

Strengthened by Rachel Carson's Silent Spring & the environmental movement

USDA Organic

National Organic Standard Seal

How does the organic certification system work?

Farm Applies for Organic Certification and is inspected yearly by the Certifying Agency

Third Party Certifying Agency inspects farms and determines compliance with the NOP Rules

Third Party Certifying Agency is accredited by NOP Program

USDA Audits Certifying Agencies every 2.5 years as part of the Accreditation process

What makes an organic system organic?

Biodiversity

Diversification and Integration

Sustainability

Natural Plant Nutrition

Natural Pest Management

Integrity

Organic Approaches to pest, disease, and weed control

Polypropylene mulch / landscaping fabric

Trap Crops

Row Covers

Other Physical Barriers

Biointensive Growing

<http://www.growbiointensive.org/index.html>

Biointensive growing context:

- What the smallest area you can grow all your food in?
- World context: more people, land issues
- Not production orientated for profit or marketing produce, although applicable to those aims

A system for growing food that uses:

- 67% to 88% less water
- 50% to 100% less fertilizer
- 99% less energy than commercial agriculture, while using a fraction of the resources

Biointensive growing can:

- produce 2 to 6 times more food
- build the soil up to 60 times faster than in nature, if properly used
- reduce by half or more the amount of land needed

Components of Biointensive Growing

Deep soil preparation

allows

Close plant spacing

and the practice of

Companion planting

using

Open pollinated seeds

fed by

Compost

obtained from

Sustainable soil fertility

which provides a

Complete diet

within a

Whole system

Intensive planting tricks

Hexagonal planting triangles neo-terra.org/PASA2.aspx

Permaculture

Ethics / Worldview:

- Care of the Earth: Recognizing that the Earth is the source of all life (Gaia theory) and that we recognize and respect that the Earth is our valuable home and we are a part of the Earth, not apart from it.
- Care of People: Supporting and helping each other to change to ways of living that are not harming ourselves or the planet, and to develop healthy societies.
- Fair Share of the surplus: (or placing limits on consumption) ensuring that the Earth's limited resources are utilized in ways that are equitable and wise.

Principles of Permaculture:

- Observe & Interact
- Catch & Store Energy
- Obtain a Yield
- Apply Self-regulation & Accept Feedback
- Use & Value Renewable Resources and Services
- Produce No Waste
- Design From Patterns to Details
- Integrate Rather Than Segregate

- Use Small and Slow Solutions
- Use and Value Diversity
- Use Edges and Value the Marginal
- Creatively Use and Respond to Change

PERMA (permanent) CULTURE

“Permaculture is about relationships that we can create between minerals, plants animals and humans by the way we place them in the landscape.

The aim is to create systems that are ecologically sound and economically viable, which provide for their own needs, do not exploit or pollute and are therefore sustainable in the long term.”

(Bill Mollison)

Permaculture is a design system: A way of...

- looking at a whole system or problem
- seeing connections between key elements (parts)
- observing how the parts relate,
- planning to mend sick systems by applying ideas learned from long-term sustainable working systems.

Keyhole Beds

- Maximizes edge and bed space
- Minimizes pathways

Forest Gardens:

Idea: Mimic Natural Systems with species that provide humans with food and nature with habitat!

Goals for Guilds:

- Over Yielding Polycultures
- Reduced Labor
- Minimize Stresses to plants / Create beneficial symbiotic relationships between plants
- Work with Nature rather than fight nature
- Jump start succession

Ecological Succession

Ways to design guilds:

1. Architectural Guilds

Based on 7 possible layers

2. Plants to Ecosystem

Start with focal plant design an ecosystem around it

3. Ecosystem to Plants

Start with a Site design a community of plants for that site that mimics nature to some degree

Architectural Guilds:

1. Canopy (large fruit & nut trees)
2. Low tree layer (dwarf fruit trees)
3. Shrub layer (currants & berries)
4. Herbaceous (herbs)
5. Rhizosphere (roots)
6. Soil surface (ground covers, strawberries)
7. Vertical layer (climbers, vines)

SPIN FARMING

Spin Creators: Wally Satzewich and Gail Vandersteen from Saskatoon, Saskatchewan are the co-creators.

What is Spin Farming?

Small Plot INTensive

Its organic based techniques make it possible to generate \$50,000 in gross sales from a half acre of land growing common vegetables

SPIN Farming:

- Land base
- Equipment and Tools
- Organic Practices
- Weeding and Irrigation
- Layout & Relays
- Pricing & Marketing
- SPIN Formulas

Landbase:

- Start with your backyard
- Move into neighbors', friends', families' backyards
- Community garden spaces
- Rent or barter land for produce or discounts at market

Free Backyard Cropland Negotiating Points available at www.spinfarming.com

Urban Land Base Advantages:

- Water- easy access onsite
- Minimal wildlife in the city
- Microclimates!
- Proximity to markets

Free What to Look for in an Urban Farm Sites Handout available at www.spinfarming.com

Creating Successions or Relays:

- Continuous harvest & growing of crops throughout the season
- Utilizing the same space for multiple crops
- Timing the planting of crops so that continuous harvest of that crop is possible

Relay: the sequential growing of crops in a single bed

Intensive relays: 3-4 crops per bed per season

Bi-relay: 2 crops per bed per season

Single relay: 1 crop per season

Single Relay per season:

- Tomatoes
- Winter Squashes
- Edamame
- Dry Beans
- Garlic
- Cabbage
- Brussels Sprouts
- Parsnips

Two way Relays:

- Early Peas followed by: Carrots, Chard, Cucumbers, Leeks or Onions
- Spinach followed by: Carrots, Eggplants, Peppers or Pole Beans
- Bunching Onions followed by: Chard, Potatoes, Tomatoes or Eggplants
- Lettuce followed by: Carrots, Eggplants, Peppers or Turnips

Three Way Relays:

- Peas-Broccoli-Summer Squash
- Broccoli-Bush Beans-Lettuce
- Spinach-Cucumbers-Radishes
- Lettuce-Onions-Radishes
- Spinach-Radish-Carrots

Four Way Relays:

- Peas-Broccoli-Beans-Beets
- Peas-Spinach-Melons-Turnips
- Chinese Cabbage-Beans-Lettuce-Onions
- Spinach-Radish-Beans-Chinese Cabbage
- Scallions-Lettuce-Spinach-Radish

Plan for Successions:

Approximately 150 days between May 15th & October 15th in MN

- Beets 55 days
- Lettuce 45 days
- Scallions 65 days
- Spinach 40 days
- Radish 30 days
- Peas 60 days
- Broccoli Raab 42 Days

My favorite Resources:

- The New Organic Grower by Eliot Coleman
- How to Grow More Vegetables* by John Jeavons
- Gaia's Garden by Toby Hemenway
- SPIN Farming www.spinfarming.com
- www.growingformarket.com
- www.attra.org National Sustainable Agriculture Information Service

Urban Farmers Stand up and be counted!

<http://www.surveymonkey.com/s/mnurbanfarms>

- Existing & New urban farming enterprises (receiving income from agricultural products raised within city limits)
- Results will:
- help inform the decisions made by policy makers
- Help in the understanding and documenting the needs and obstacles of current and future urban farms.
- The survey will be available online until April 1st.

- In it you will be asked to describe your farm, describe your farm business, indicate what information is important for your business, how you want to get that information, and a little information about yourself.
- More info? Contact: Betsy Wieland 612-596-1175 eliza003@umn.edu

Urban Farmer Community of Practice:

- Coming in April
- Monthly Networking Meetings
- Learn from each other
- Share what's working
- Sign up for more info at the MISA or Gardening Matters displays

Upcoming Urban Farming Workshops

5 Sessions:

- **Principles & Practices of Organic Growing**
- **Biointensive Growing**
- **SPIN Farming**
- **Field Layout & Design for Production**
- **Feeding Your Community One Tomato at a Time: Marketing Strategies and Options**

5 Tuesdays starting April 13th 6pm-8:30pm

At Gordon Parks High School on University Avenue in St. Paul

\$60 for all 5 classes, \$15 per class if preregistered, \$20 at the door

Register at www.pricoldclimate.org

Urban Farming Production Skills Workshop:

This one-day workshop will provide the basic knowledge you need for successful urban food production in our cold temperate climate, with special focus on African crop varieties.

Instructors **Courtney Tchida** of the Minnesota Institute for Sustainable Agriculture and **Stefan Meyer**, Production Manager for PRI Cold Climate's Backyard Harvest Program, will share wisdom gained from their combined decades of experience in urban agriculture.

They will lead you through: building soil fertility, managing pests and disease, managing crops, extending the growing season, and more!

Information on a wide variety of crops will be featured, including common African crops that are not widely grown here: egusi melon, African spinach, okra, hawkery berry, sweet potatoes, and peanuts.

This course is offered as part of the Minnesota African Women Sustainable Backyard Farming Project.

All are welcome!

WHEN: Saturday, April 10, 9:00 AM - 4:00 PM

WHERE: [Minneapolis College of Art and Design](http://www.minneapoliscollege.edu), 2501 Stevens Ave, Rm 410

COST: \$60