

The Basics of Organic Food Production

Dr. Elaine Solowey

Spring term, 3 weekly lecture hours, 3 credits.

Course description

The purpose of this course is to teach about small scale organic food production, its potential and its problems. In this course we will explore the social and economic aspects of producing one's own organic food and engage students in practicing soil enrichment techniques, composting and vermin-composting, container gardening and keeping small livestock as well as seed saving, food storage, food preparation, slow food movements and the active preservation of heirloom fruits vegetables and animal breeds. It includes workshops on building greenhouses, cloches and chicken coops.

Grade components:

Final exam 40%

Project 40%

Students choose an aspect of organic food production to investigate independently, presenting at the end of the semester a report or demonstration project with a written component.

Exercises 20%

Students build and keep compost piles, plan and plant a garden, practice mulching, learning basic pruning techniques, construct a greenhouse from scrap material and design a chicken coop

Week 1: Course introduction and its relevance to current events issues such as the underlying reasons for hunger in the first world.

Required Reading:

Mittal, Anuradha. "The Growing Epidemic of Hunger in a World of Plenty." *Fatal Harvest*. Ed. Andrew Kimbrell. Corvelo: Island Press, 2002. 303-305.

Kingsolver, Barbara. "Called Home." *Animal, Vegetable, Miracle: The Year of Eating Local*. New York. Harper Collins, 2009. 1-22.

Logsdon, Gene. "The Economics of Small-Scale Grain Production: Maybe Farming isn't Supposed to Make Money." *EnergyBulletin.net*, Oct. 29, 2009.

Week 2: Bringing food production back home. The need for localization of food production and economies of scale.

Required Reading:

Kirchenmen, Frederick. "Scale--Does it Matter?" *Fatal Harvest*. Ed. Andrew Kimbrell. Corvelo: Island Press, 2002. 91-97.

Astyck, Sharon. "How Much Did the Green Revolution Matter?" *EnergyBulletin.net*, Jan. 7. 2007.

Jeavons, John. "Cultivating Our Garden." *In Context: A Quarterly of Humane Sustainable Culture*. Fall 1995: 34-37.

Week 3: Good food starts with good soil. What are the elements of good soil and how might they be assembled?

Required Reading:

Goering, Norton-Hodge and Page. *From the Ground Up: Rethinking Industrial Agriculture*. New York. Zed Books, 1999. 10-15; 29-33.

Week 4: CSAs, seed saving and agricultural diversity. What is the 100-mile diet and is it applicable to everyone?

Required Reading:

Altieri, Miguel. "The Ecological Impacts of Industrial Agriculture." *Fatal Harvest*. Ed. Andrew Kimbrell. Corvelo: Island Press, 2002. 197-199.

Nabhan, Gary. "Invisible Erosion." *Enduring Seeds*. University of Arizona Press, 2002. 46-65.

Week 5: Urban gardening and community gardens. The art of using household waste for household food production.

Required Reading:

Asty, Sharon. "The Bountiful home: Grow and Preserve." *Depletion and Abundance*. Gabriola Island: New Society Publishers, 2009. 181-196.

Campbell, Stu. *Let It Rot! The Gardeners Guide to Composting*. North Adams: Storey Publications, 1998. 1-40.

Week 6: Edible landscapes. The meaning of the word economy and how it applies to agriculture.

Required Reading:

Soloway, Elaine. "Broadening the Base of the Pyramid." *Small Steps towards Abundance*. Acco: Thistle Syndicate/Bibliobooks. 2003. 9-28.

Luttman, Gail and Rick. *Chickens in Your Backyard: Beginners Guide*. Rodale Press, 1976. 119-131.

Flottum, Kim. *The Backyard Beekeeper: An Absolute Beginners Guide to Keeping Bees in your Yard and Garden*. Rockport Publications, 2005. 17-31.

Week 7: "Permaculture, biomimicry and the One Straw Revolution."

The advantages and disadvantages of mimicking natural systems.

Required Reading:

Smith, J. Russell. *Tree Crops: A Permanent Agriculture*. San Francisco: Harper and Row, 1950. 3-19.

Kingsolver, Barbara. "The First Month of Spring." *Animal, Vegetable, Miracle: The Year of Eating Local*. New York: HarperCollins, 2009. 43-58.

Mollison, Bill. *Permaculture: Urban and Country Strategies*. Cairns: Quantus Press, 2000. 171-178.

Week 8: Sustainable agriculture: cultivating rural/urban linkages.

Lessons from "The Great Depression". When rural poverty leads to urban impoverishment.

Required Reading:

Kingsolver, Barbara. "A Matter of Motherhood: Raising an Heirloom Breed.." *Animal, Vegetable, Miracle: The Year of Eating Local*. New York. Harper Collins, 2009. 315-331.

Week 9: Chickens in the backyard: How animals can make your food garden more productive. The case for integrated agriculture on a small scale.

Required Reading:

Flottum, Kim. *The Backyard Beekeeper: An Absolute Beginners Guide to Keeping Bees in your Yard and Garden*. Rockport Publications, 2005. 32-65.

Luttman, Gail and Rick. *Chickens in your Backyard: Beginner's Guide*. Rodale Press, 1976. 119-131.

Week 10: Extending the growing season (Greenhouses, cloches row covers and active mulching.) Harvesting more of the sun: various strategies for extending the growing season.

Required Reading:

Freeman, Mark. *Building Your Own Greenhouse*. Mechanicsburg: Stackpole Books, 1992. (entire booklet)

Week 11: Food from the garden throughout the year: Workshop on drying, freezing canning, root cellars and other storage methods. How to sustain a 4 season harvest and to utilize seasonal foods.

Required Reading:

Costenbader, Carol. *The Big Book of Preserving the Harvest: 150 Recipes for Freezing, Canning, Drying and Pickling Fruit and Vegetables*. North Adams: Storey Publishing, 1992. 61-77.

Week 12: Wise Agriculture

Designing a sustainable agriculture system that works within the parameters of location and resource base.

Required Reading:

Nabhan, Gary. "New and Old Ways of Saving." *Enduring Seeds*. University of Arizona Press, 2002. 86-105.

Soloway, Elaine. "Treasures in the Backyard." *Small Steps Towards Abundance*. Acco: Thistle Syndicate/Bibliobooks, 2003. 62-91.

Berry, Wendell. "Hope." *Fatal Harvest*. Ed. Andrew Kimbrell. Corvelo: Island Press, 2002. 373-374.

Week 13: Exam and presentations.

Recommended Readings:

- Ableman, Michael "Urban Agriculture." *Fatal Harvest*. Ed. Andrew Kimbrell. Corvelo: Island Press, 2002.
- Mittal, Anuradha, "The Growing Epidemic of Hunger in a World of Plenty" *Fatal Harvest*. Ed. Andrew Kimbrell. Corvelo: Island Press, 2002. 303-305.
- Astyck, Sharon. "How Much Did the Green Revolution Matter?" *EnergyBulletin.net*. Jan. 7, 2007.
- Astyck, Sharon. "What the Victory Gardens Produced." *Depletion and Abundance*. Gabriola Island: New Society Publishers, 2009.
- Berry, Wendell. *The Gift of Good Land*. San Francisco: North Point Press, 1984. Chapters 5, 7 and 8.

- Berry, Wendell. "Hope." *Fatal Harvest*. Ed. Andrew Kimbrell. Corvelo: Island Press, 2002. 373-374.
- Campbell, Stu. *Let It Rot! The Gardeners Guide to Composting*. North Adams. Storey Publications, 1998.
- Costenbader, Carol. *The Big Book of Preserving the Harvest: 150 Recipes for Freezing, Canning, Drying and Pickling Fruit and Vegetables*. Storey Publishing, 1992.
- Flottum, Kim. *The Backyard Beekeeper: An Absolute Beginners Guide to Keeping Bees in your Yard and Garden*. Rockport Publications, 2005.
- Freeman, Mark. *Building Your Own Greenhouse*. Mechanicsburg. Stackpole Books, 1992.
- Green, Janet. *Putting Food By*. New York. A Plume Book, 1992.
- Goering, Norton-Hodge and Page. *From the Ground Up: Rethinking Industrial Agriculture*. New York. Zed Books, 1999.
- Jeavons, John. *How to Grow More Vegetables*. Ten Speed Press, 2006.
- Kingsolver, Barbara. *Animal, Vegetable, Miracle: The Year of Eating Local*. New York: HarperCollins, 2009.
- Kirchenmen, Frederick. "Scale Does it Matter?". *Fatal Harvest*. Ed. Andrew Kimbrell. Corvelo: Island Press, 2002. 91-95.
- Logsdon, Gene. *Small Scale Grain Production*. WorthIt Publications, Revised 2009.
- Luttmann, Gail and Rick. *Chickens in Your Backyard: Beginners Guide*. Rodale Press, 1976.
- Mollison, Bill. *Permaculture: Urban and Country Strategies*. Cairns: Quantus Press, 2000. Chapter 8.
- Nabhan, Gary. "New Ways of Saving." *Enduring Seeds*. University of Arizona Press, 2002. Chapter 6.
- Pollen, Michael. "All Flesh is Grass." *The Omnivore's Dilemma*. Penguin, 2006.
- Rogers and Alexander. *Saving Seeds, How Gardeners Protect and Preserve Seed Diversity*. Storey Publications 1991.
- Salatin, Joseph. *Pastured Poultry Profits*. Dunaway Paperbacks, 1996.
- Soloway, Elaine. "Broadening the Base of the Pyramid." *Small Steps towards Abundance*. Thistle Syndicate/Bibliobooks, 2003.
- Soloway, Elaine. "Treasures in the Backyard." *Small Steps towards Abundance*. Acco. Thistle Syndicate/Bibliobooks, 2003.
- Smith, J. Russell. *Tree Crops: A Permanent Agriculture*. San Francisco: Harper and Row, 1950.3-19.