

# Introduction to the Integrating Paper

# 1

## Introduction: Where will the next generation of farmers come from and how will they farm?

In the last century, the trend has been a shift from thousands of small farms (100-200 acres) to hundreds of large farms (400-500 acres each). As this shift has occurred the diversity of products grown on farms has vastly decreased. Whereas a century ago farms could and often would produce all the food for their community for the year. These days farmers produce commodities that require high levels of processing before they can actually be consumed.

With fewer and fewer farms there are also fewer and fewer farmers. In many cases the age old tradition of children following in their parents footsteps as farmers is dying out. Land nearby cities is often more profitable when sold to developers than it is left for farming for the next generation. This leads to urban sprawl, and farms being further and further from the population centers they could feed. The current generation of farmers often discourages their children from continuing farming because of the low wages and long hours required to make a living. Finding ways to get new farmers on the land is important for both rural communities and the food security of our country.

In the last few decades the environmental movement has also moved from a fringe movement into the mainstream. These days everyone has heard of global warming, hybrid cars and recycling - these ideas are part of mainstream knowledge. This movement has also changed the way people look at food. Farmer's markets and natural food co-ops are springing up and thriving in rural and urban communities alike. People are becoming more aware of the issues of using pesticides and the demand for organic food has increased by 20% every year for the last 15 years or more. People are starting to wonder about where our food is coming from, how it's grown, who is growing it.

This new demand is creating niches for direct marketing, community supported agriculture farms and local food systems as well as jobs in the organic sector. Those niches are creating opportunities for new farmers willing to explore and adopt organic practices.

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# Background

Where do organic farming practices come from? Some would argue that organic practices were a reaction to the industrialized chemical agriculture that came about after world war two. Others would argue that organic farming practices can be traced back to Rudolf Steiner's Agriculture lectures that he gave in 1924. Others would argue that it was Sir Albert Howard in England in the 1940's. Few would argue that J.I. Rodale popularized and helped create the organic movement in the United States starting back in the 1940s.

Organic gardening and farming was initially more of an approach that avoided synthetic chemicals and embodied a wholistic, natural esthetic. Organic practices actually come in different varieties, each adding its own dimensions to the philosophy of organic farming. For organic approaches to farming and gardening there are a few resources that quickly rise to the top.

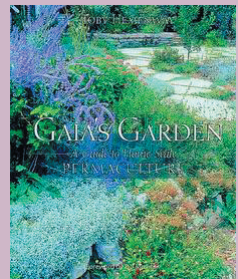
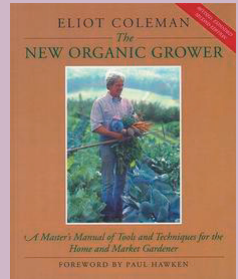
John Jeavons *How to Grow More Vegetables, Fruits, Nuts, Berries, Grains and Other Crops than you ever thought possible on less land than you can imagine*, first published in 1974, is an essential 'how to grow' resource using the bio-intensive methods of organic growing. Eliot Coleman's *The New Organic Grower* is the best comprehensive manual of tools and techniques for organic gardening and small scale farming. Its overview of crop rotation and green manures is essential for organic farming. The concepts of Bill Mollison's permaculture is detailed in *The Permaculture Designer's Manual* from 1988. However with its Australian

orientation and complexity, it can be somewhat difficult to use. Mollison's *Introduction to Permaculture* is a little better however, Toby Hemenway's *Gaia's Garden* is much better suited for applying permaculture in the United States at the backyard and farm scale.

Today organic is a USDA trademarked certification process with pages and pages of rules and regulations. The application process is intensive as is the yearly inspection process. It covers a wide variety of issues such as soil fertility, compost and manure use, natural resource conservation, water use and quality, crop rotations, weed, pest and disease management, land use and buffers, equipment, harvesting, post harvest handling, crop storage, transportation, record keeping and labeling.

## Problem Statement

In 1995, the graduate minor in Sustainable Agriculture first became available. Shortly after an undergraduate minor in sustainable agricultural systems followed. The minor programs requirements include one or two required courses that focus on philosophical tenants of sustainable agriculture: economic, environmental and social sustainability. An internship which gives a student a hands-on opportunity in the world of sustainable agriculture is also required. In addition students must complete a few additional elective courses of their choice from a wide variety of fields including agronomy, horticulture, plant pathology, entomology, applied economics, natural resources, soils, etc. There is one elective course in



(top) How to Grow More Vegetables... by John Jeavons  
(center) The New Organic Grower by Eliot Coleman  
(bottom) Gaia's Garden by Toby Hemenway

Horticulture called, Growing Plants Organically: What It Means To Be Green, which focuses on the legal, scientific, and ethical perspective of organic agriculture. There is no hands on lab component to the course.

Thus, while the sustainable agriculture systems minor existed there was really no way for students to really engage in learning the practical application of organic agriculture at the University without completing an independent study. Figuring out a way to nurture the growing organic agriculture movement in a practical way that would leave students prepared to start organic farms was an unmet challenge at the University.

## Rationale Statement

I graduated in 1999 from the University of Minnesota with a B.S. in environmental horticulture. My first job after graduation was as an intern on a community supported agriculture farm growing organic vegetables, herbs and flowers. I sought out that experience because I did not get it at the University.

Five years later I returned to the University working at the Minnesota Institute for Sustainable Agriculture as the Sustainable Agriculture Graduate Minor Program Coordinator. In the winter of 2004 two students, who were in the middle of their undergraduate degrees, came looking for a similar experience except they didn't want to have to leave the university to get it. They wanted a place on campus for undergraduate students to try growing horticultural crops organically and equally important was that they wanted to take an active role in making the organic garden idea happen.

## Purpose of the Project

The story of what happened next is detailed in Section 3: Before the Class. Seven months after those students inquiring about "a place for undergraduates to try growing things organically" we had a 1 acre site on campus ready for students to do just that. The students decided they wanted a hands on experience planning the details of the farm as an entire class. This brought the challenge of creating a class and a curriculum that would teach theory and enable hands on practical experience in organic agriculture.

## Objectives

In creating the student organic farm planning class, we also were creating the student organic farm program at the University of Minnesota. Our objectives included more than just giving students practical opportunities to experience organic agriculture. Up until that point the University lacked a sustainable agriculture student community and we wanted to help build that community of students.

We knew we wanted this program to be student driven, not faculty driven. We wanted to give students the opportunity to work together to make real world decisions. Students would need to be given a strong voice in the decisions that would be made about the farm.

This was an opportunity to start from the beginning and give students a real world experience in starting the student farm. We wanted to cover the all the areas that need to be considered when starting a business. Looking at operations, finances,

## Objectives(continued)

marketing and human resources. In essence we wanted to create a business plan.

In starting this new program we also knew that we needed to find ways to establish a creditable and on-going program that would become a valued member of the internal University Community and the external Twin Cities Community.

## Limitations and Assumptions that Guided the Project

The biggest limitation that we faced was time. The first year of the class we had just 15 meetings, each being 1 and 1/2 hours long to create a plan for the Student Organic Farm. The class meetings translated into 22.5 hours to create both a plan for the first season and the program as a whole. Despite the limited contact time, the students also wanted to get their hands "dirty" growing plants organically.

The key assumption that guided our project was that we would collectively create a "Master Plan" for the Student Organic Farm. Our initial syllabus was ambitious as we wanted to cover most of the 280 pages of the Building a Sustainable Business Plan Guide. We also wanted to cover organic certification, farm design, and potential project partnerships all of which more or less did get covered. Not all of the instruction and planning happened in the class as we initially envisioned some parts had to be taken on by smaller groups outside of class.

In terms of assumptions the biggest one that I made was that the students who took the class would be seeking similar outcomes as to what I had desired as an undergraduate. In reality the students that took the class that first year sought out many different things from the class and came from a wide background of experiences.