FIRST GENERATION FARMERS: AN ASSESSMENT OF THEIR CHALLENGES, MOTIVATIONS, LEARNING PROCESSES, AND VALUES

By

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ABSTRACT

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This dissertation is composed of 3 papers that investigate issues related to beginning and first-generation farmers' entry barriers, their motivations and learning processes, and the ideologies and values that have influenced their production and marketing practices. Each paper presents the results of qualitative research that investigates these issues in depth. Together, they contribute to an understanding of why first-generation and beginning farmers decide to participate in a challenging profession even when other options exist. They define the most significant barriers to new farmer entry; explain the ways in which individuals overcome significant impediments to the development of farming lifestyles and livelihoods; and explore the historical evolution of the alternative agriculture movements they have chosen to engage in. Becoming a farmer requires substantial capital, a broad range of knowledge resources, and a unique set of expectations and goals. Typically, the most substantial barriers to beginning farmer entry are 1) capital acquisition, 2) finding land, and 3) understanding farm business. This study explores the unique ways in which individual farmers deal with these barriers. It presents the stories of 4 successful first-generation farm families based on in-depth ethnographies, with specific focus on the motivations, learning processes, successes and struggles faced by each. It describes the evolution of organic ideology and values that have provided opportunities for these farmers to succeed, and offers suggestions for policies and programs that will support the entry, development, and sustainability of small-scale, organic first-generation farmers in the future.

To the memory of my father,
Philip Dean Reid
And to my daughter Camille

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INTRODUCTION

This Dissertation consists of three papers focused on first-generation small-scale organic farmers in Michigan. First-generation farmers are those who have no direct background in agriculture, yet have chosen a difficult and demanding profession that promises none of rewards (wealth, fame, leisure, stability, comfort…) that our society typically values. Farming is also a profession that requires a wide variety of skills. Successful small-scale farmers have to be botanists, mechanics, accountants, salespeople, ecologists, soil scientists, legal scholars, construction workers, veterinarians, community builders, machine operators, and entrepreneurs; or at least possess some combination of these skills. Because first-generation farmers have not inherited these skills, at least as they apply to agriculture, they must be learned.

Farmers are also faced with the inherent uncertainties of weather, pests, price fluctuations, market competition, equipment failure, labor availability and the stability of infrastructure. Their work requires constant problem solving and they are often forced to make impromptu decisions that can have important long-term effects. They are often forced to arbitrate issues with neighbors who are either indifferent to, or intolerant of their land use needs. Small-scale, direct-market farmers in particular, commonly interact with customers who are either dissatisfied or feel that their patronage has earned them personal time and attention. They deal with continually changing rules and regulations, and the many different inspectors and officials tasked with enforcing them. Most of these farmers also spend significant time training employees and/or interns, providing them with tasks, and making sure that that the tasks are performed adequately.

The papers in this dissertation ask/address the question: why would anyone choose a profession that requires the acquisition of so much knowledge, that guarantees long days of hard physical and mental labor, yet fails to offer traditional social rewards? It asks how individuals have been successful in establishing farms despite their lack of an agricultural background, and with limited financial and knowledge resources. In exploring the major impediments that such individuals face, it also asks how certain individuals have successfully overcome them.

The answers provided are necessarily specific to the history, motivations, values, skills, resources and aspirations of each individual farmer. There are however, certain commonalities among them that may assist aspiring farmers in their own efforts to overcome the limitations they face, and to understand that it is possible to do so. In addition, the studies and stories offered here provide educators, activists, lenders, investors, researchers, and policy makers with a better understanding of the needs of aspiring and beginning farmers. Understanding the needs and issues that aspiring and beginning farmers commonly face should help these advocates apply their own limited resources to efforts that help to address the needs of aspiring and beginning farmers in the most efficient, broad, and expedient ways possible.

The establishment and promotion of first-generation farmers is important for a number of reasons. Agricultural researchers, advocates, activists, and observers have long been concerned with the declining number and increasing age of American farmers, as well as declines in new farmer entry (Ahern and Newton 2009; Coffman 1979; Dimitri, Effland, and Conklin 2005a; Kanel 1961; Lusher Shute, Anderson, Bernhardt, Creech, vT Fleming, Oakley, and Shute 2011; Nelson, Mullin, O'Neill, and Morse 2004; Niewolny

and Lillard 2010). There is also an increasing interest in the emergence of beginning and first-generation farmers within popular culture (Anderson 2911; Bittman 2011; Herzog 2009; Quimby 2009; Weise 2009).

First-generation farmers have also been an important catalyst for the dramatic growth in both organic and local direct market food sales that as taken place in recent years. Small scale beginning farmers have been integral participants in the development of farmers markets and other forms of direct local marketing. Between 1994 and 2013, the number of U.S. farmers markets increased from 1,755 to 8,144 (Marketing Services Division 2013). Community supported agriculture (CSA), restaurant sales, and other types of direct local marketing have seen similar growth. A 2011 Survey of approximately 3000 young and beginning farmers (Lusher Shute et al. 2011) showed "…that farmers who grew up on working farms were much less likely to sell through farmers markets, CSA and restaurants" (p.14). According to the 2007 USDA Agricultural Census, "new farmers" (those who had started their operation within the past five years) farmed only 6% of all agricultural land, but accounted for 10% of "direct to consumer" sales, and 12% of "organic sales" (USDA-NASS 2009b).

A number of beginning farmer training programs, funding opportunities, and other types of incentives have emerged and proliferated within recent years. Niewolny and Lillard (Niewolny and Lillard 2010) offer a comprehensive summary of over 30 beginning farmer initiatives. These include training programs, land access programs, apprenticeship programs, business planning programs, and more. The Sustainable Agriculture Education Association also provides a list of dozens of academic programs in sustainable agriculture at colleges and universities throughout the United States and

Canada as well as a directory of over 50 student farms on college campuses in the U.S. alone[1]. Beginning Farmer and Rancher programs were first introduced in 2002 Federal Farm Bill, and were expanded in 2008. The failure of Congress to pass a Farm Bill in 2012 has stalled funding for a number of beginning farmer programs.

The Three Papers

The first paper in this dissertation is titled "Barriers to Beginning Farmer Entry and Development: A Review of Current Studies and Analysis of Cultural, Political, and Geographic Factors". It presents several studies that explore the primary factors that have limited new farmer entry over time. These include an overview of recent surveys that investigate the relative importance of specific barriers to new farmer entry and development; it investigates the ways in which different types of farmers are affected by particular barriers; and it provides an overview of literature that reviews current efforts to promote beginning farmer entry and development. The purpose of this paper is to synthesize current research regarding barriers to entry for new and aspiring farmers, as well as educational and policy-based solutions with the potential to ameliorate these barriers.

The second paper is titled "Farming for Meaning and Fulfillment: A Storied Analysis of Motives, Knowledge Acquisition, and Entry Processes Among Small-Scale First-Generation Organic Farmers". This paper tells the stories of four successful first-generation organic farm families in Michigan based on intensive ethnographic research. It focuses on their motivation for becoming farmers; the means by which they managed to

[1] See http://sustainableaged.org/Projects/AcademicPrograms/tabid/86/Default.aspx and http://sustainableaged.org/Projects/StudentFarmDirectory/tabid/85/Default.aspx

enter the profession; the learning processes involved in developing their farming and marketing skills; and both the struggles and successes they have experienced through the process of establishing and developing their farms. Through the insights these stories offer, this paper shows that there are many different ways to enter and succeed in small-scale organic farming for those with little or no experience. It offers specific insights based the real-world experiences of successful. The detailed stories that describe these experiences will assist aspiring farmers in understanding the realities of new farmers entry. They will also provide tangible examples that allow farm educators, and policy makers with information about the nuances and realities of the struggles that first-generation farmers face, and help them focus on the best ways that such struggles might be overcome.

The final paper is titled "The Evolution of Organic Ideology, Values, and Practices: From the Back-to-the-Land Movement to Contemporary First-Generation Farmers in Michigan". It argues that a gradual evolution in organic ideology beginning in the early 1970's was instrumental in developing the practices and markets that have allow modern first-generation farmers to survive in a very different economic and social climate. It suggests that despite this evolution, the basic values of "back-to-the-land" (BTTL) farmers, and those of modern first-generation organic farmers are relatively similar. Finally, it postulates that the successful efforts of ideologically based organic farmers to develop the legitimacy of organic farming and local markets over time have made it likely that contemporary farmers (unlike most of their BTTL predecessors) will stay "on the land".

The dissertation concludes with a synthesis of the analyses and findings from each of these papers. It describes the primary lessons and ideas presented in each study. It offers a list of potential policies, programs, and practices that could be implemented in an attempt to address the difficulties that beginning and aspiring farmers face. Entering farming, even on a small scale, is extremely difficult for first-generation farmers. There are a number of lessons to be learned from the individual studies, and from a synthesis of their conclusions. The information and stories presented here will not solve all the problems they identify. They do, however, provide valuable information about the realities that first-generation farmers face. They discuss the ways in which beginning farmers have succeeded despite their struggles, and they suggest the kinds of assistance that can best serve them (and those like them) in surmounting some of the significant challenges they have faced. These include the expansion and focus of both public and private farmer training programs, land linking programs, beginning farmer research, loan programs, incentives for military veterans who wish to enter farming, and a number of other potential initiatives.

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BARRIERS TO BEGINNING FARMER ENTRY AND DEVELOPMENT: A REVIEW OF CURRENT STUDIES AND ANALYSIS OF CULTURAL, POLITICAL, AND GEOGRAPHIC FACTORS

Introduction

On June 30th, 2010 United States Secretary of Agriculture Tom Vilsack was called to present testimony at a U.S. Senate Committee hearing about implementation of the 2008 Farm Bill's commodity, crop insurance, and disaster assistance programs. After being introduced by then Agriculture Committee Chair, Sen. Blanche Lincoln, Vilsack unexpectedly set aside his twelve-page written testimony and instead delivered a speech regarding his vision for the 2012 Farm Bill. Focusing on the need to rebuild rural communities and improve their economies, he suggested the Committee consider "just one idea":

> Why not set as a goal for the 2012 Farm Bill the ability to add at least 100,000 additional farmers in the area of the small farming and commercial operations. Why not establish local advisory councils in communities across the country to identify, recruit, encourage, and assist young people to consider a life of farming. Why not develop a system similar to case management and human services that would enable those young people to have assistance to work themselves through the many programs that are created in the Farm Bill. Why not create a vehicle where new farmers can get help with business planning, with marketing, and the other ingredients of successful entrepreneurship. Why not expand our efforts to encourage transitions from those seeking to retire to those seeking to start the farming business. Why not place the nation's attention on the need for young farmers on the same plane as police officers and teachers. They are equally important to the future of this country. The sad reality is that the farming community is aging… I think it's important as you all begin your discussions and deliberations of a Farm Bill, that we focus an aggressive effort on helping beginning farmers begin…[2]

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[2] Secretary Vilsack's prepared remarks, from which he did not read a single word, are available at

Many policy makers and scholars have since questioned whether a goal of 100,000 new farmers is practical without costly government programs and significant changes in agricultural policy, neither of which appear to be forthcoming. But the Secretary's extemporaneous comments have been widely quoted, and are a poignant example of the growing recognition among agricultural policy makers, educators, and scholars that long-term sustainability of US agriculture and rural communities is dependent on new farmer entry and development.

It is currently estimated that up to 70% of all U.S. farms will change hands within the next 20 years. (Parsons, et al. 2010) While anecdotal evidence suggests an increasing interest in farming among young people and individuals lacking an agricultural background (Lee 2009; Loviglio 2007; Salkin 2008) the number of beginning farmers has consistently fallen in recent years (USDA-NASS 2009c)

The purpose of this paper is: 1) to provide an overview of published literature and current surveys that attempt to identify the most substantial barriers to entry and development faced by new and aspiring farmers; 2) to present the results of interviews with a broad cross section of beginning farmer educators, advocates, and program administrators regarding new farmer development; 3) to analyze the opinions and experiences of these interview subjects within the context of information about entry barriers gleaned from the literature and survey overview; and 4) to address possibilities

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http://216.40.253.202/~usscanf/index.php?option=com_docman&task=doc_download&gid=193. A video of the hearing, including the speech quoted here is available at: http://www.senate.gov/fplayers/CommPlayer/commFlashPlayer.cfm?fn=ag063010&st=1050 (accessed 1/17/11).

for expanding programs, policies, and resources aimed at promoting new farmer entry and development based on this analysis.

Understanding both the root causes for the steady decline in the percentage of beginning farmers, and the most significant barriers faced by potential new farmers is essential to developing effective programs and strategies for addressing these barriers. The following review of literature and surveys provides an overview of: 1) studies that explore macroeconomic and structural factors that have influenced new farmer entry over time; 2) publications that discuss barriers to new farmer entry and development based on case studies of discrete groups of farmers in specific geographical locations; 3) an overview of recent surveys that investigate the relative importance of specific barriers to new farmer entry and development; 4) studies that discuss the ways in which different types of farmers are affected by particular barriers; and 5) literature that reviews current efforts to promote beginning farmer entry and development.

Barriers To New Farmer Entry and Development: Review of Literature and Surveys

Macroeconomic and Structural Trends in New Farmer Entry

Despite the fact that they begin to appear in the literature in the 1950's, both the number and scope of peer reviewed studies related to the structural and economic issues of beginning farmer entry and development are limited. Those that do exist present compelling arguments regarding the structural changes accompanying modern agricultural development that have led to consistently decreasing rates of new farmer entry. These trends include agricultural product specialization, market consolidation,

decreasing price margins, increasing farm size, and a corresponding decrease in the total number of farms and farmers.

Beginning farmers are not a homogenous group. The USDA defines a beginning farmer as anyone who has not been a principal farm operator for more than 10 years. An understanding of the nuances between different groups of beginning farmers is an important component in understanding their potential for entry, the ways in which their entry may affect their contribution to the structure of agricultural system as a whole; and whether their entry will support the growing sustainable and local farm movements

The idea that fewer, larger, and more specialized farms tend to decrease the number of new farmers entering the profession over time was proposed a half a century ago (Baughman 1952; Kanel 1961). More recently, Gale (2003) suggested that the trend toward specialization and commoditization within agriculture has fostered investment from non-farmers that limits the availability of farmland and raises its price. Similarly, Honeyman (1996) has presented detailed economic analyses showing that the capital requirements associated with large, specialized farming operations are the primary factor limiting access for new and young farmers. Lapping and Fitzsimmons (1982) stress that additional land price pressure resulting from commercial and residential development in peri-urban areas represents a threat to both new farmer entry and existing farm succession. Gale (2003) suggests that while increasing land values and higher interest rates play an important role in limiting farmer entry, commodity price and the availability of quality off-farm jobs play a role as well. He also cites the importance of demographic factors, specifically a declining number of young people raised on farms as a reason for decreasing farmer entry rates.

A study by Mishra, Wilson, et al. (2007) argues that increased land values and rental prices in crop production regions have resulted in a cost structure for new and beginning farmers that "…is often higher than existing farms operating at a more economical [larger] scale (p.161)". Furthermore, their study concludes that transaction costs for New and Beginning Farmers (NBFRs) are also comparatively high, since these farmers need to acquire not only financial capital, but also information about farming practices, farm business management skills, an understanding of regulatory issues associated with farming, and the ability to allocate available resources efficiently.

Regional Studies of Barriers to Beginning Farmer Entry and Development

This literature deals almost exclusively with the limitations to new farmer entry and development presented by their lack of capital resources. Case studies of small, diversified beginning farmers conducted by the Wisconsin Rural Development Center (Griffith 1991) showed that "…money is the big obstacle" (p.12) to starting a new farm. Similarly, the New England Small Farms Institute lists "access to capital and credit as a primary factor in their hierarchy of needs for beginning farmers. In a survey of Wisconsin dairy farmers, Barham, Jackson-Smith, et al. (2001) separate the issue of equity from that of income and cash flow, suggesting that financial considerations are complex and nuanced. A Michigan Farm Bureau article presents a survey of 50 conventional Michigan farmers between the ages of 18 and 35, and a larger survey of 296 young conventional farmers from across the United States (Smego 2002). When asked to list their top concerns, respondents in both studies identified "profitability" as paramount, followed closely by "land availability" and "access to other farm resources". A report from the Farmlasts Project (Parsons et al. 2010) lists financing, land acquisition, and education as

the primary needs of aspiring farmers. While Trede and Whitaker's (2000) study of 128 beginning farmers in Iowa found that financial issues caused by limited farm business management knowledge and the lack of intergenerational farm succession planning were the most influential factors in limiting beginning farmer entry and development.

Recent Surveys

Three recent surveys have focused on identifying specific barriers to new farmer entry. The surveys were conducted by 1) the website www.beginningfarmers.org[3]; 2) the organizers of a national policy forum focused on "innovative policies and projects at the federal, state, and local levels to support new and beginning farmers" (Drake University Agricultural Law Center 2010) held at the Drake University Agricultural Law Center in 2010; and 3) the National Young Farmers' Coalition, (NYFC)[4]. The beginningfarmers.org survey was based on 87 respondents, the Drake survey included 126 respondents, and the NYFC survey was based on approximately 1300 respondents[5].

Each of the three survey instruments asked participants to assess the barriers faced by beginning farmers in slightly different ways. The beginningfarmers.org survey asked participants to rank the "biggest barriers to new farmer entry and development". The Drake survey asked participants to rank "obstacles facing a person who wants to begin farming" in order of importance. Finally, the NYFC survey asked participants to identify

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[3] www.beginningfarmers.org was created by the author, and is now owned by AgHub, a subsidiary of Carbon Media Group.

[4] The National Young Farmers' Coalition (NYFC) is an organization that grew out of discussions conducted at the Stone Barns Young Farmer Conference in Tarrytown, New York in December of 2009. It was established in order to create an organization promoting policy change, farmer-to-farmer education, and network building for young farmers, by young farmers

[5] Results of this survey only measured responses from the 78% of participants who identified themselves as "farmers" (full or part time).

the “biggest challenges faced by young and beginning farmers”. The top six results from each survey are presented in Table 1. Results for each are based on the number of respondents who identified a particular barrier as the “most important”. The NYFC survey allowed respondents to list more than one result as “most important”. The beginningfarmers.org and Drake surveys instead asked participants to “rank” individual barriers in order of importance.

Table 1. Surveys identifying barriers to beginning farmer entry and development. (*Indicates an identical number of respondents indicating this factor as most important.)

Survey	**1**	**2**	**3**	**4**	**5**	**6**
Beginning-farmers.org	Access to Capital, Finance	Access to Land	Business Planning Knowledge and skills	Production Knowledge	Access to Health Insurance*	Access to Adequate Training, Information*
Drake	Lack of Capital	Access to Finance and Credit	Available Land to Rent of Purchase	Lack of Business Planning and Marketing Skills	Need For Education and Training	Cost or Access to Health Care
NYFC	Lack of Capital	Land Access	Health Care	Access to Credit	Business Planning And Marketing Skills	Profitable Markets

Both the Drake and NYFC surveys separated “lack of capital” from “access to credit”, while the beginningfarmers.org survey did not. Because access to financing or credit is by definition a means by which to obtain capital, this analysis does not consider them as wholly discrete barriers. There are certainly overlaps between most of the

barriers presented in each survey. Access to land, for example, is clearly a larger barrier for those who lack the capital to purchase or rent it. Yet the relationship between access to financing/credit access and capital availability is arguably the most overt. As the final report from the NYFC study (Lusher Shute, et al. 2011) points out, "although ranked independently in the survey question, capital and credit access are so intertwined that they must be considered together" (p.21). Each of the three surveys identifies the lack of capital as the primary barrier to beginning farmer entry and/or development. When access to financing and/or credit is not distinguished from access to capital, land access ranks as the second most important barrier in each study. The most striking difference between the surveys was that while both Drake and beginningfarmers.org showed access to business planning knowledge/skills ranked third, the NYFC study ranked access to healthcare ahead of "business planning and marketing skills".

Because NYFC survey results were based exclusively on answers given by farmers themselves[6], it is possible that this is a more important consideration for them than it is for the non-farmers who were included in the other two studies. It may also be argued that the high cost of health care in the U.S. makes it an issue directly related to capital access. Still, there seems to be a strong possibility that the demographics of the study itself play a strong role. The survey was conducted over a period in which there was a highly publicized debate being waged over the Obama Administration's health care plan. Survey respondents from 10 states made up 57% of the total, and all 10 went to Obama in the 2012 election. In addition, 68% of respondents were under 35 years of age.

[6] Approximately half of the respondents to the beginningfarmers.org survey were farmers. Respondents in the Drake survey were primarily beginning farmer educators, advocates, and researchers.

Exit polls showed that young people were far more likely to have voted for Obama (http://www.washingtonpost.com/wp-srv/special/politics/2012-exit-polls/table.html), and only 3% of all survey respondents were old enough to be eligible for Medicare.

Literature on Individual Effects of Entry Barriers

The publications and surveys reviewed above consistently suggest that capital limitations and associated issues are the primary barriers affecting beginning farmer entry and development. But there is also a significant body of literature that emphasizes the nuanced ways in which individual beginning and aspiring farmers are affected by these barriers.

Ahern (2011) suggests that beginning farmers are "…in many ways more diverse than the established population. So, one's characterization of beginning farmers depends on where the blind man has touched the elephant" (p.1). Mishra and Gillespie (2007) reported that goal structure, along with demographic, financial, and geographic differences play a significant role in both enterprise selection and farm income levels.

A study by Brodt et al. (2007) indicates that the choices made in the adoption of different farming practices are dependent on economic, social, environmental, and personal factors, as well as the information sources to which new and potential farmers have access. Mishra et al. (1999) found that the profitability of small and limited resource farmers depended on a wide range of factors including age, debt to asset ratio, soil productivity, diversification, crop insurance, and the ratio of variable costs to the value of agricultural production.

Finally, a 2010 study conducted in Southeast Michigan (West 2010) divided beginning farmers into four distinct categories based on the financial and knowledge

resources they brought to their new farming operations, as well as the type of farming they were interested in pursuing. This study suggests that each group tends to experience entry barriers such as financing and land access in distinct ways.

Review of Current Efforts to Promote Beginning Farmer Entry and Development

Niewolny and Lillard (2010) noted that research on the education of adult beginning farmers in the US has been sparse, while training programs have been steadily growing in number and diversity. Many of the new training programs are either privately run, or revisions of outdated public programs which failed to recognize the need for inclusion of local knowledge, increased interest in alternative agriculture systems, lack of business skills, and lack of capital to implement traditional recommendations (Hayes 2001). Niewolny and Lillard have also noted that the more successful beginning farmer education programs that have emerged have been tailored to the specific needs of the farmers they serve based on a clear recognition that different new and aspiring farmers experience barriers differently. As a result, they have observed that many educational programs have made conscious attempts to incorporate "local knowledge, stakeholder participation, community dialogue, experiential learning, and social networking" (p. 72). Targeting beginning farmer training and development programs to the specific needs of the diverse farmer communities they serve, and providing more than just technical information is essential to their success.

Programs aimed at the development of new farmers

The Beginning Farmer and Rancher Development Program (BFRDP) was first initiated in 2002 and has retained funding in subsequent farm bills. Recent farm bills have included several types of beginning farmer loan programs. Farm Bill programs have

also begun to include "set-asides" within their budgets specifically targeted toward beginning and socially disadvantaged farmers. The recent economic downturn, legislative and public sentiments demanding cuts within the federal budget, and the failure of Congress to pass a new farm bill despite the expiration of previous bill in September of 2012 currently jeopardize the continuation of these programs. The draft farm bill passed by the full Senate in the summer of 2012, as well as that passed out of the House Agriculture Committee several months later left these programs largely intact. Yet until a new farm bill is signed, and unless a polarized government can come to an agreement on the substance of, and funding for a new farm bill, their future is by no means guaranteed.

Local public and private programs for the development of "incubator farms"[7] have emerged in an attempt to address the issue of land access, though currently they remain few and far between. Meanwhile, several states including Iowa and Nebraska have passed legislation providing tax incentives for either the sale or purchase land by new farmers, and several may be considering similar measures.

Implications of Literature and Surveys

Published literature and surveys suggest that impediments to new farmer entry are related to trends within the agricultural sector including specialization, increasing farm size, consolidation, and rising land prices. They emphasize that a number of specific barriers to entry can be defined. They tend to agree that what is of primary concern is capital access and management, while the related issues of land access, and business

[7] Incubator farms are primarily focused on providing land access that allows new farmers to gain experience in farming, and to contribute to local food production. They typically consist of sections of land that provide small plots for new farmers with rental rates either at no cost or at a below market cost, for a limited time. They also tend to encourage sharing of equipment, resources. and knowledge.

planning skills are important as well. In addition, they show that while nascent efforts to address entry and development barriers are emerging, they remain scattered. They have yet to slow the aging of the farm population, to challenge existing barriers on a broad scale, or to provide the level of assistance necessary to promote new farmer entry on a broad scale.

Furthermore, while information from the literature and surveys has helped to identify the general issues limiting beginning farmer entry and development, the contextual nature of these barriers has only recently been recognized, and this recognition has yet to produce extensive tangible results. It has recently become more common for studies related to new farmer development to acknowledge the regionally based ideological, cultural, and financial differences inherent within them. Yet few studies offer practical suggestions for dealing with these differences. A number of educational, outreach, and policy programs provide valuable templates for how this can be accomplished. But widespread adoption of these practices has yet to become the norm, especially within traditional agricultural support institutions.

Identifying the primary barriers to new farmer entry and development can help to guide policy and program development. But understanding how these efforts can be tailored to the specific needs of individuals is essential to effective program implementation. For this reason, interviews with a broad cross section of beginning farmer education, advocacy, and development program administrators have been conducted. The results of these interviews, with special emphasis on the ways in which subjects direct their efforts toward the needs of diverse individuals and groups will be presented below.

Interviews with Beginning Farmer Educators and Advocates

Methods

Twelve experienced administrators of beginning farmer development and resource programs were interviewed for this study. They were chosen based on their administrative roles in well-known programs/organizations with strong reputations for effective work in beginning farmer education, development, resource provision, and/or advocacy. Interview subjects were selected from a broad geographic base, and a diverse range of aspiring and beginning farmer advocacy and development program types (see Table 2).

Table 2. Listing of interview subjects by their organizational role, the focus of the program with which they are involved, whether this program is public or private, and the region in which it is located.

Role of Subject	Type of Program	Public or Private	Region
Educator	Training	Public	East
Educator	Training	Private	East
Educator/Administrator	Training	Private	East
Educator/Administrator	Training	Public	Midwest
Educator/Administrator	Training	Private	Upper Midwest
Educator/Administrator	Training	Private	West
Administrator	Training	Private	Midwest
Administrator	Training	Private	Upper Midwest
Administrator	Information/Resource Provider	Public	Corn/Grain Belt
Administrator	Information/Resource Provider	Private	Corn/Grain Belt
Administrator	Land Resource Provider	Private/Public	East
Educator/Administrator	Information/Resource Provider/Training	Private/Public	East

Interviews were conducted by telephone and lasted between 40 and 90 minutes. Interview subjects were informed that the purpose of the interviews was to gain an understanding of barriers to beginning farmer entry and development, and how these barriers could be addressed most effectively. The interviews were not recorded, but notes were taken as accurately and completely as possible. Notes from interviews were then analyzed for consistent themes, codes were developed based on these themes, and the sections of interviews related to each of these themes were marked with the codes developed.

Interviews were loosely based on the following research questions: 1) What do you see as the biggest impediments to beginning farmer entry and development?; 2) What are the most important factors in overcoming these barriers, and how does your program/organization attempt to do this?; 3) What kinds of beginning and aspiring farmers participate in your program?; 4) What are their interests and goals, and how do you tailor your program to suit them?; 5) What do you consider "success" in your efforts to assist them?; 6) Can beginning farmer development programs be expanded locally and/or nationally?; and 7) What kinds of policies or programs on the local and/or national level would be most effective in assisting in beginning farmer development?

These questions were treated as a basic interview guide, not a rigid text. Not every interview subject chose to answer each question directly, and the interviews were iterative, in that subjects were allowed to expound on related issues that the interviewer believed might help to answer the basic research questions in a more nuanced and detailed way.

Interview notes were read and analyzed, and a set of codes was developed based on specific criteria[8] for identifying them within the text. Each set of interview notes was then reviewed and sections of the text that fit within one more criteria were highlighted and marked with the applicable code(s). Coded data was then used to address the main questions within the analytical framework of the study (see below).

Basis for Analysis

Most interview subjects identified and discussed many of the fundamental barriers to entry and development ascertained from the review of literature and surveys[9]. But as the overview makes clear, aspiring and beginning farmers are not uniform. Barriers tend to manifest in unique ways depending on the specific circumstances and characteristics of the individuals who face them. In conducting and analyzing the interviews it became clear that three primary factors profoundly influence the way that different people experience entry and development barriers. These are: 1) The geographic region within which aspiring and beginning farmers are situated, and the corresponding influence of geography on the type of farming, and farming methods they choose to pursue; 2) The variability in material, financial, and knowledge resources that individuals possess when planning and pursuing a farming career; and 3) the unique values, goals, expectations, cultural forms, and social norms[10] that they tend to carry with them into the process. Interview data is therefore presented through an overview and analysis of the

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[8] Codes were based on articulation of specific entry barriers, and the means and limitations for overcoming these barriers.

[9] Several additional entry and development barriers were discussed by interview subjects. These were added to the set of codes developed for analyzing the data.

[10] Many of these are based on demographic characteristics such as sex, race, and age; while others are based on more intangible factors such as community and family relationships, beliefs systems, and personal identity.

ways in which each of these three factors affect barriers to entry for aspiring and beginning farmers.

Region and Farm Type

Within the broad spectrum of new and beginning farmers that interviewees have worked with, geographical location is central to determining both limitations and opportunities. The physical environment in which farms are situated determines soil type, topography, temperature, rainfall, pest pressure, irrigation potential, and more. Geographical location also determines distance to markets, availability of processing and storage facilities, transportation infrastructure, and educational opportunities. Farm size, physical infrastructure, and land price can also be quite different in different parts of the country. As a result, specific types of farms and farm products tend to dominate in different regions.

Interview data emphasize the fact that type of farm and farm product(s) produced can strongly influence the way in which individual barriers to entry and development are experienced. Financing options, financial resource requirements, the type and amount of land and equipment needed, the kind of marketing, management, and other business decisions that must be made, as well as the knowledge and skills required to run a successful farm business all tend to differ based on the farm type.

In terms of financing and finding land, interview subjects working with farmers in the "grain belt" identified the vast resource requirements needed for this kind of farming as a primary limitation. Price margins for the agricultural commodities that tend to dominate in "the heartland" are often slim, so farmers in this region typically require large acreages in order to make a profit. Large grain farms also need to be highly

mechanized which means that equipment, infrastructure, and input costs for these farmers tend to be high. Thus, initial capital outlays for starting farms of this type can be quite substantial.

On the other hand, interview subjects pointed out that the mono-cultural systems that predominate in these areas make calculating income potential a relatively straightforward proposition for lenders. Both the private and public institutions that offer farm loans tend to be familiar with this type of farming, and find profitability and lending potential relatively easy to calculate. In addition, government subsidies, insurance, and disaster payments help to mitigate financial risk for commodity farms, and by extension, to their lenders as well.

Interview subjects serving primarily small, diversified farmers in the Northeast and parts of the upper Midwest identify different barriers related to financing and land acquisition. Several emphasized the difficulty in procuring loans from private or public institutions that are not adequately equipped to evaluate the income potential of a farm growing dozens of different kinds of crops, and often marketing in unconventional ways[11]. Nor do these farmers typically qualify for federal direct payments or insurance programs, a factor which inherently increases risk for potential lenders.

Individuals working with these types of farmers also consistently pointed out the necessity of being close to population centers in order to take advantage of direct marketing options. In these situations, aspiring and newly developing farmers face competition for land from industrial and residential development, which can significantly influence price.

[11] Interviews suggest that many of these farmers use multiple direct marketing methods including farmers markets, and community supported agriculture (CSA).

Alternatively, crop diversity allows this type of farmer to sell products year-round according to interview subjects. CSA marketing in particular, was useful for many of the farmers in this category, since it provides capital at the beginning of the season when monetary outlays for seed and equipment tend to be highest. It was also suggested that many farmers of this type receive a premium price for their products from consumers who value face to face interaction, the freshness of local products, and who prefer to support farmers within their own communities. Direct marketing also helps small farmers to retain the entirety of their product price, in contrast to the situation for farmers selling products to retail marketers.

Material, Financial, and Knowledge Resources

The resources that a potential or beginning farmer can bring to bear are also important to the success of the farm enterprise. Interview data showed clear differences in the kinds of resources beginning farmers have when starting out, and the influence of these differences in overcoming barriers to entry and development.

Beginning farmers in the grain belt are, according to interview subjects, most often individuals who grew up on farms who are looking to take over their family farm or start a farm in the area where they grew up. Having been raised on a farm typically gives them the advantage of direct experience with farming practices. In most cases they have the ability to access the knowledge of family members with farming experience. In small, tight-knit communities financial transactions tend to take place between people who know one another. Thus, both public and private lenders in rural communities often have direct connections to beginning farmers and their families, a fact that can influence lending decisions. Farmer parents can also help their children get started by allowing

them to take over the family operation slowly or by providing them with financial resources, and/or the use of farm equipment, and infrastructure.

On the other hand, several interview subjects pointed out that as commodity farms get bigger and more mechanized, the cost of starting one continues to increase. Limits on the size of government loans and the holdings of rural banks and credit corporations can make the capital needed to purchase a large farming operation difficult to procure. In addition, interviewees pointed out that farm equity is often the only retirement plan that existing farmers have, and many hold significant debt, which can preclude parents from simply passing along their farms to the next generation. Even in cases of direct inheritance, dividing farm assets between multiple offspring is often a confounding factor. When one or more children are interested in taking over the farm, they may be faced with the difficulty of obtaining the capital to "buy out" their brothers, sisters, or other family members. The situation can become even more complicated when the original farms are jointly owned by more than one extended family member, or by unrelated business partners. In these cases, different branches of the same family, or offspring from different families may have an interest in either farming, or in the assets of the farm, which can make succession extremely complex, and sometimes acrimonious.

Farmers are also staying in business longer today than ever before. The average age of a farmer is approximately 58 years (USDA-NASS 2009b). For this reason, the younger generation may be interested in starting a new farming operation long before the older generation is ready to retire. This necessitates either a partnership arrangement, or the next generation starting a farm elsewhere.

First generation farmers face different obstacles according to the interview subjects who work with them. Until very recently, beginning farmer loan programs administered by the USDA Farm Service Agency (FSA) required three years of 'direct farm business experience'. This rule disqualified many aspiring farmers despite their agricultural education or farm work experience. New USDA rules now allow consideration of farm work and/or internship experience (USDA-FSA 2012). Because interviews were conducted before these rules were put in place, the effect of these changes is not known. However, interview subjects have clearly indicated that direct experience in the business management of a farm enterprise is often considered as a prerequisite by lending agents.

Interview subjects have also pointed out that young people often don't have the credit history necessary to procure loans. Some also carry significant student loan or credit card debt accrued during the process of pursuing their farming education. Farmer education and training programs are developing a better understanding of the resource needs required for their graduates to succeed, including business planning and direct farming experience. But incorporating these elements into an agricultural training program is often a challenge, and has been slow to develop (especially within University-based programs). Interview subjects have also pointed out that the cost and time commitment necessary for participation in farmer education programs can present an impediment to many potential participants who need to feed their families, and pay bills in the meantime.

The tight credit market stemming from recent economic crises have recently made finding a loan even more difficult for all beginning farmers, regardless of their experience

and knowledge. Farmland prices have increased significantly as financial investment has gravitated away from residential real estate and the stock market, and toward commodities and farmland (Mincer 2007).

An increase in the number of small farms over the last decade (USDA-NASS 2009a) may be due in part to small-scale beginning farmers entering the profession. But interview subjects suggest that 'hobby', 'lifestyle', 'retirement', and 'tax break' farmers make up a significant portion of this sector. This development has caused both a financial resource disparity among the participants in beginning farmer training programs, and driven farm land costs higher. Individuals who have the capital to invest in new farm startups are almost universally less reliant on the income generated from their farm than those whose capital resources are limited. Potential farmers with significant financial resources can often afford to buy land outright, and qualify more easily for loans. In many cases, they can also afford to take a loss for the first few years of their operation, and are more capable of assuming risk, which allows them more flexibility both in terms of building their farm business slowly, and purchasing equipment and infrastructure resources quickly.

In addition, beginning farmer training programs are relatively few and far between. Because they cost money to administer, even potential farmers who happen to live near the site of a training program require both the funds to pay for attending the program and the time to participate. While beginning farmer training program administrators are constantly looking for ways to assist less affluent individuals, their own costs present limitations with regard to such efforts.

Social Factors

According to USDA Economic Research Service (ERS) data (Ahern and Newton, 2009) beginning farmers are substantially more likely to be women than farmers in general. This is in stark contrast to the farming population as a whole. Yet interview subjects report that women farmers often face more significant obstacles than their male counterparts in procuring loans, taking advantage of relationships with their farmer neighbors, and securing markets for their products. Several interview participants have suggested that this is due to inherent social and cultural biases within the agricultural community, including lenders, extension agents, federal program administrators, product buyers, and the local community, especially in rural areas.

Aspiring and beginning farmers belonging to immigrant and minority communities face a number of unique social and cultural barriers as well, according to the interview subjects who work with them. There is a long history of discrimination toward farmers from minority communities, though the federal government has been working to rectify both previous and current injustices[12].

Beyond the institutional barriers that minority farmers may face, interview subjects identify language skills and cultural norms as common obstacles. Many members of immigrant communities possess farming experience, having emigrated from countries with largely agrarian economies. But farming in the U.S. can be very different culturally, ecologically, technologically, and with regard to markets than that which is

[12] The USDA has recently settled lawsuits with black farmers (USDA, 2010), as well as women and minority farmers (see https://www.farmerclaims.gov/Documents/9-13%20HWFR%20poster-508.pdf) who have been victims of discrimination. The farm bill also includes monetary set-asides within a number of programs specifically directed toward "socially disadvantaged farmers" (minorities and women).

practiced in their countries of origin. Farmer educators have faced challenges in both promoting participation and presenting information to members of these communities. Language barriers, lack of trust, and cultural differences each play a role in such situations.

In addition to language and cultural barriers, interview subjects report that immigrant farmers often have limited formal education. This fact can make learning new skills, understanding the legal and regulatory aspects of farming, purchasing land and other products, developing markets, and participating in government programs especially daunting and difficult. With regard to government programs in particular, interviewees have suggested that corruption and favoritism within the institutions of their home countries, as well as concerns about immigration status make many immigrant farmers extremely reluctant to take advantage of the opportunities these programs offer.

Conversely, the interviewees revealed that within many of these communities a strong system of self-help and cooperation often serves as an alternative means for financing new enterprises. Community leaders and more established farmers within these groups commonly participate in educating, assisting, and advocating for newer arrivals. Community based lending programs, and cooperative financing schemes are reportedly quite common as well according to interview subjects. Because immigrants from specific areas or ethnic groups tend to cluster together geographically and have strong social and family networks, the bonds between them can sometimes offset the challenges faced by the beginning farmers among them.

Overcoming Barriers

Interview subjects were all involved in attempting to work with potential and developing farmers to help them overcome the barriers they face. Because of the inherent differences in the farmers and farming systems they work with, each attempted to do this in a different ways, and identified specific means for accomplishing this goal.

Those working in the grain belt tended to be focused on succession planning: helping families to set up the legal (wills, trusts, etc.) and social (discussions within families that made expectations and desires clear) mechanisms needed to make land transfer land to the next generation easier. They also worked hard to implement mechanisms and policies that made land transfer to non-family beginning farmers more feasible. Federal, state, and private programs that encourage "land-contract" or rent-to-own agreements are encouraged. States such as Nebraska and Iowa have now also passed legislation that provides tax breaks for those who sell their farmland to beginning farmers, for beginning farmers themselves, or both.

"Land-Link" programs administered by organizations that work to connect retiring farmers or land owners with beginning farmers and assist with negotiations and legal issues are active in many states. A couple of interview subjects were involved with facilitating or administering "incubator programs". These programs may be either private or public (usually on a local level), but are designed to provide new farmers with land to farm for a few years (long enough to get themselves established) and typically involved sharing of equipment, infrastructure, and knowledge.

Interview subjects also sometimes worked with organizations that provided micro-loan programs. They provided mentorships, and lots of education and business

help. Others worked to provide small loans, or worked with established lenders to help them understand how to evaluate small diverse cropping systems and unconventional marketing strategies.

A number of them provided formal education, which included production training but almost always emphasized the development of business planning skills as well. These programs often provided a mentor-matching program for their graduates that allowed them to work with established farmers who helped guide them through the farm development process.

Many also worked through their organizations or with coalitions to advocate for the development or reform of laws and policies that promote beginning farmer development.

Conclusions

This paper acknowledges that most beginning farmers face distinctive identifiable barriers to successful entry and development. Attempts to define these barriers and their relative importance through analyses of changes in agricultural structure and through surveys of individual groups have been useful in elucidating the most prominent issues limiting new farmer entry. Based on information from recent surveys and interviews, the three most pressing barriers fall into the related categories of financing, finding land, and business planning, with affordable health care also being identified as barrier in recent studies. These barriers are generally agreed upon among scholars, educators and advocates of beginning farmer development based on surveys and personal experience. However, contextual differences between beginning and aspiring farming based on geography and different types of farming systems have not been thoroughly analyzed.

These three factors, while primary for most beginning and aspiring farmers, fail to take into consideration the needs and opportunities of individuals with different goals based on personal history, demographics, regional location, race, immigrant status, economic condition, type of farm. The requirements and capacities for overcoming these barriers are quite different for an aspiring or beginning farmer who wishes to grow corn in Iowa than for one who seeks to grow to grow organic vegetables on the urban fringe for direct markets in Boston (for example).

An understanding of how barriers to entry are experienced by individual farmers must be based on a consideration of their geography and farm type, as well as issues of culture, gender, the resources that each beginning or aspiring farmer has and requires, and the specific issues that affect their access to these resources. Outside forces such as the effect of commodity markets, demand for certain products, consumers' ability to pay for farm products, relationships within a given community, the way that different farming systems are perceived in particular geographic areas, consumer or industry demand for particular agricultural products, government policies, and the cultural barriers faced by women, minorities, non-English speakers, and those without permanent legal citizenship are important issues as well.

Programs and policies that aim to promote beginning farmer development cannot be uniform. They must be tailored to the specifics needs of new and aspiring farmers based on their individual needs.

Based on the review of literature, surveys, and interviews with beginning farmer educators and advocates, several recommendations are made:

1. While many beginning farmer education and resource assistance programs are successful and useful, they must be greatly expanded if they are to make a significant impact on the current decline in beginning farmer numbers, and address the needs of a new generation of aspiring farmers.
2. Beginning farmer programs must address the specific geographical, cultural, racial, gender, and ideological needs of individuals.
3. Beginning farmer entry programs and policies should be specifically aimed at those farmers who do not already have the resources necessary to start new farms.
4. Efforts to provide information and outreach for immigrant and multicultural farmers are currently inadequate and/or underutilized.
5. Both private and public lenders need to become acquainted with the needs of a new generation aspiring and developing small, diverse, locally-based farmers, and learn how to adequately assess their risk and potential.
6. Better education and assistance programs focused on multigenerational farmer succession are needed.
7. Expansion of federal, state, and private funding that offers startup loans to farmers themselves, as well as research and programs that promotes beginning farmer education, research, and development is necessary.

A significant number of successful beginning farmer education and promotion programs do currently exist. Most are privately funded and locally based. Federal programs that address new farmer entry are relatively new, quite limited in scope, and

don't appear to be growing[13]. The vast majority of funding for agriculture in the US remains focused on preserving the economic sustainability of large commodity farmers through price supports and insurance programs. Current efforts aimed at facilitating the entry and development of beginning farmers are typically not being led by public institutions such as land grand universities, or cooperative extension services. Federal participation in promoting beginning farmer development is limited to a few programs within the very large "farm bill". The percentage of federal agriculture dollars that are specifically allocated to developing new farmers is miniscule when compared to those spent on farm insurance and commodity subsidies. These programs have ostensibly been funded year after year in an effort to provide food security, and maintain the viability of American agriculture. Yet, to date they have not focused nearly as much attention on assuring that the population administering America's farms is adequately replenished.

[13] We will not know the current substance or extent of beginning farmer programs until a new "2012" farm bill is passed. The previous farm bill expired in September of 2012 and has neither been extended, nor has a new bill been passed as of December 14th, 2012.

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FARMING FOR MEANING AND FULFILLMENT: A STORIED ANALYSIS OF MOTIVES, KNOWLEDGE ACQUISITION, AND ENTRY PROCESSES AMONG SMALL-SCALE FIRST-GENERATION ORGANIC FARMERS

Introduction

For the past century, US farms have continued to increase in size and decrease in number, while becoming both more mechanized and more specialized (Dimitri, Effland, and Conklin 2005b). These factors, along with increasing farmland prices and rents have led to a significant decline in new farmer entry over the past 30 years or more (Ahern and Newton 2009; USDA-NASS 2009b). At least half of all US farmers are expected to retire within the next decade (Katchova 2010). The fact that fewer farmers are taking their place each year leads to the inevitable conclusion that if current trends continue the US will become more and more reliant on large scale specialized farms to meet its food needs.

There is ample evidence that a growing number of farmers and eaters are concerned with the loss of new farmers, are unhappy about the trend toward larger specialized farms, and are choosing to develop and support alternative food production models. The emergence of a "local food movement" (Halweil 2004; Lyson 2004), and significant increases in the popularity of farmers markets and community supported agriculture (CSA) programs (Brown and Miller 2008) indicate that there is increasing demand for products supplied by small-scale diversified farms within local communities. The increasing popularity of organic food, and the growth of organic farms is the result of

a related movement that has been growing rapidly as well (Dimitri and Oberholtzer 2005; Duram 2005; Greene 2001 ; Guthman 2004a).

The purpose of this study is to present in-depth personal accounts of first-generation organic farmers who have succeeded in making farming their primary or sole source of income. It provides information focused on the motivations and worldviews of individuals who choose to enter a difficult and risky profession despite having other options. The study also offers a psychological explanation for the ways in which farming provides meaning and fulfillment to the individuals whose stories are presented. This paper presents a detailed account of farmers' lives, based on personal interactions and interviews. The stories that are told here offer descriptions of successful first generation farmers through accounts of their personal histories, their values, and the processes they have gone through in the process of making farming a viable lifestyle and livelihood. This information will help scholars, educators, and aspiring farmers understand the varied paths that people take in the process of entering farming. It seeks to inform this audience about the difficulties and struggles, as well as the breakthroughs and successes that a small group of farmers have experienced while carving their individual paths. It seeks to both inspire and caution those who are serious about entering farming, and help them understand both the difficulties and the successes that others have had. The intent of these stories is to offer both those who wish to enter farming without prior experience and those who endeavor to help them on this path: 1) a realistic understanding of the hard work and tenacity that building a farm life entails; 2) lessons that might help in avoiding the pitfalls and realizing the successes that others have experienced in this endeavor; 3) descriptions of the risks and rewards involved in pursuing a life motivated by personal

and communal values rather than economic security; and 4) an understanding that there are many different ways to enter farming, and that the resulting lifestyle, place, and business often take on the personal characteristics of the individuals who choose to engage in this endeavor.

The farmers featured in this study are immersed in the local food movement, as well as supporting organic and sustainable production methods. They are also all "first-generation"[14] farmers. Farming is not an easy way to make a living even for those who grew up on a farm and inherited knowledge, land, markets, or other resources. But these farmers managed to establish successful farm enterprises[15] despite their lack of a farming background. They have neither assimilated agricultural knowledge nor inherited agricultural resources from their families. These individuals made the decision to farm even though it required them to confront the many significant obstacles to new farmer entry (Shute 2011) and engage in work that is often both physically and emotionally taxing. Their choice to farm, their learning processes, the development of their farming skills, and their acquisition of the land, infrastructure, and equipment necessary has relied strictly on their creativity, savvy, innovation, and determination.

The focus on small-scale, organic or "ecologically conscious", resource limited, direct-market farmers is based on evidence that new and beginning farmers sell a

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[14] "First-generation" refers to the fact that the farmers in each of these stories did not grow up on farms14. The term was chosen in order to distinguish the subjects of these stories from "beginning" or "new" farmers, both of which are used to describe the length of time a person has been a "principal farm operator", not whether they have a farming background in farming or not.

[15] According to the U.S. Small Business Administration, 50% of all small business fail within their first five years (www.sba.gov/). The term "successful farm enterprise" is used here to denote farms that have survived for five years or more without significant off farm income.

disproportionately large percentage of their products through direct markets, are much more likely to use organic methods, and tend to run smaller farms with fewer assets than established farmers (Ahern and Newton 2009; Buttel, Jackson-Smith, Barham, Mallarkey, and Chen 1999; USDA-NASS 2009b). The research cited above also indicates that beginning farmers are more likely to be reliant on off-farm jobs than established farmers, at a rate of close to 80%.

The choice of research subjects who do not rely on off-farm income was intentional. Their reliance primarily on farm income helps to answer two basic questions: 1) Why would people without a farm background choose to enter a difficult and risky profession that fails to offer traditional social rewards?; and 2) How have these people acquired the skills and gathered the resources necessary to become successful farmers? The paper explores these questions through stories that describe the lives and experiences of first-generation farm families. The stories focus specifically on: 1) motivation for becoming farmers; 2) circumstances by which they managed to enter the profession; 3) learning processes and knowledge systems involved in developing and growing their farms; and 4) specific struggles and successes they have experienced in the process of accomplishing these things. The stories provide academics with detailed accounts and analyses of the motivations and knowledge systems held by these first-generation farmers. They provide educators and policy-makers personal information about the experiences, innovations, and needs of successful first-generation farmers. They also provide aspiring farmers with valuable information about how others successfully entered into farming, as well as the challenges they faced and the strategies they used to overcome them.

The two research questions require in-depth personal detail, which cannot simply be discovered in one or two interviews. The decision to enter farming is not just a decision about taking a job or choosing a career. The average time an individual stays at his or her job today is 4.4 years (Meister 2012). Because farm and home are usually connected, becoming a farmer entails a very personal decision about how to live over the long term, not just how to earn a living in the near future. It is as much about choosing a lifestyle as it is about choosing a career. Similarly, exploring the way in which people learned to farm and how they were able to acquire the resources necessary to do so can be complicated. Not only does farming require multiple skills that cross many disciplines (botany, soil science, entomology, ecology, marketing, bookkeeping, equipment repair, construction, etc.), but understanding farm development involves complex questions about finances, values, histories, and a number of other things that many people prefer to keep private. For this reason, exploring questions about why and how individuals have decided to become farmers tends to be much more intimate and complicated than asking why they chose, for example to become a bank teller.

Literature Review and Theoretical Context

Small-scale Local and Organic Farmer Stories

By nature, people lead storied lives, and as Apps (Apps 2005) says, "every farm tells a story". Kaltoft (Kaltoft 1999) goes further in describing this phenomenon. "At the level of the farmer", she says "it is the stories of individuals, their backgrounds, education, training, attachment to different groups and ideologies, access to knowledge and different kinds of knowledge, and events in their lives which mold the explanation of

actual farming practice. Different farming practices have distinctive values inherent or embodied in them as a result of complex stories (p.39)."

Many publications present the stories of small-scale, organic, or ecologically based farmers. Some are autobiographical (Chaskey 2005; DeLind 1999; Friend 2006; Sincalir 2000; Stewart 2006) while others are presented from the perspective of "observers" (Duram 2005; Hamilton 2009; Sontag and Bubolz 1996; Thistlethwaite 2012). Each used these stories to help describe different aspects of farmers' experiences. DeLind describes her experience starting a small CSA farm; Sinclair and Stewart both describe starting small farms outside of large cities and the struggles and the joys and struggles of their experiences; Friend describes starting a sheep farm with no prior farming experience. Sontag and Bulboz examine whether these first-generation farm families could succeed when given land, and some resources. Duram explores the production processes, values, and motivations of organic farmers. Hamilton presents stories of three independent and innovative farmers who are challenging the status quo of industrial agriculture. Thistlthwate presents stories that illustrate practical ways in which sustainable farm businesses can be created and grown.

The above stories include descriptive anecdotes that capture the magic and wonder that the farming experience can bring. Sinclair describes the way in which "…the plant's triumph carries more than economic importance to the farmer", and the way that it "…seems to represent a reaffirmation of self and nature that man seems to require (p.5)". The stories provide genuine and reflective analyses of the values, the idealism, and the political and cultural understandings and opinions that have driven people to the farm, and driven them away from it. DeLind describes the way that the community of people

with whom she started a farm began "…as visionaries", but ended up being overwhelmed by "…the pervasive market mind set – the tyranny of capital…" (p.5). They describe the loneliness, frustration, and isolation that alternative farming can bring. In discussing the experience of one of the farmers in her study, Hamilton talks about how "One of the core values they aim to foster is community, and yet in the community of LaMoure County [ND] their belief in a farm system based in moral currency has often isolated them (p.249)". The stories presented in these publications provide many other valuable, intimate, touching, and honest examples of the joys and struggles inherent in alternative farming. Because of this they are extremely important to those of us who wish to understand and promote the kinds of farming the subjects of these stories have/do engage in.

In recent years, stories about small-scale, beginning, and organic farmers have proliferated within the popular press (Anderson 2911; Bittman 2011; Carlson 2008; Herzog 2009; Quimby 2009; Salkin 2008; Weise 2009). They have become so numerous in newspapers, online magazines, and films that it would be impossible to list them all. But their prevalence offers a strong indication that there is increasing public interest in the development of small-scale, beginning, and organic farmers, in understanding who they are, and in hearing their stories.

Theories of Motivation and Fulfillment

Understanding the motivation of an individual without a farm background to enter the profession requires an understanding of their personalities, innate desires, values, goals and histories. The bulk of the literature exploring the integration between the motivation to engage in work and the personal fulfillment received from it comes, not

surprisingly, from the literature based on psychological studies. Here I review aspects of this literature that relate to small-scale farmers, and present a theoretical context through which to explore the motivations of first-generation farmers.

Explanations of the choice to be come a farmer when other options exist can be informed by research on what makes an occupation satisfying. As the principal operators and managers of their own farms, the individuals who are the focus of the case studies presented in this paper are all "self-employed". Hundley's (2001) overview of the relationship between job satisfaction and self-employment suggests that "…the strict division of labor and hierarchical controls that characterize work organizations leave workers with little scope for developing valued skills and exercising control over their work (p.294)". Previous research on this issue, he notes, emphasized the central importance of autonomy and independence to the fact that self-employed workers are generally more satisfied with their jobs than others. According to research conducted by O'Brien (1982), "skill utilization" is the most important factor in predicting job satisfaction. When individuals feel their skills are being used to their maximum capacity, they tend to be more satisfied with their work. Importantly, O'Brien points out that skill utilization overlaps with both learning and mental challenge as factors for satisfaction with work. Hundley also identifies a strong association between job satisfaction and the level of "task autonomy", "task variety", and "flexibility", all of which are inherent attributes of both self-employment in general, and small-scale farming in particular.

Other researchers have noted that there are individual differences in what makes a job satisfying for a particular person (Hofmans, De Geiter, and Pepermans 2013). Personality type and individual values tend to affect the level of satisfaction with certain

kinds of work (Ronen 1978). Gasson investigated the work motivations of a group of small-scale farmers through the context of their goals and values. Her work indicated that the most important factors in their satisfaction with work were 1) independence; 2) open air and a healthy way of life; 3) aspects of work itself (enjoyment of tasks, variety, purposeful activity); 4) challenge, gamble, and the chance to achieve; 5) income and a cheaper way of living; 6) the chance of capitol gain; 7) interaction with other farmers; and 8) family tradition. While she found similar results with larger scale farmers, these individuals tended to place more value on economic gain.

Gasson briefly mentions Maslow's "hierarchy of needs" (Maslow 1943) which describes human needs from the most basic survival needs, through safety needs, love/belonging needs, the need for esteem, to "self-actualization", which he described as a person's desire for self-fulfillment. He would later add a sixth element to his hierarchy: "self-transcendence" which incorporated altruism, empathy, and spirituality (Koltko-Rivera 2006). Maslow has been critiqued by subsequent scholars (Neher 1991; Wahba and Bridwell 1979) for the lack of empirical evidence he presented for his hierarchy, and for it's failure to incorporate situational schemas into the understanding of motivation. Other researchers have found broad support for his theory (Chulef, Read, and Walsh 2001; Koltko-Rivera 2006). A number of other motivational theories have been proposed since Maslow (Ryan and Deci 2002), yet his work has continued to enjoy prevalence within the cannon of psychological literature. The focus of Maslow's hierarchy on motivation and fulfillment, as well as the commonalities between the characteristics of "self-actualizing" and "self-transcendent" people and those of the four farmers in these

cases studies, and the first-generation farmers upon whom this study focuses, make it a legitimate starting point for analyzing the motivations of study participants.

Maslow (Maslow 1954; Maslow 1968) and Rogers (Rogers 1961; Rogers 1977; Rogers 1980) have, over the years, offered the following characteristics (among others) as descriptive of a self-actualizing person: 1) Has realistic perceptions of self and others; 2) Exhibits high levels of creativity, spontaneity, and receptivity; 3) Is capable of being autonomous and is interested in personal growth, but exhibits a high level of compassion, humility, respect, and a need for human interaction and intimacy; 4) Tends to take a problem-centered approach to life, 5) Is motivated by a strong capacity for informed decision making; 6) Exhibits a strong capacity to cope with difficult circumstances; 7) Has an openness to and deep respect for nature; 8) Yearns strongly for, and has an unusual connection to spirituality 9) May be indifferent to material comforts; 10) Can exhibit a skepticism of science and technology; and 10) Remains detached from societal and cultural influences and is generally antipathetic to highly structured, inflexible, or bureaucratic institutions. Many of these characteristics, as we shall see, are precisely those that have helped the first-generation farmers featured in this study to succeed.

Alternative Knowledge Systems and Learning

Investigating the question of how first-generation small-scale organic farmers developed the skills necessary to become successful involves an analysis of their learning processes and knowledge systems. Researchers have noted the tendency of small-scale beginning farmers to exhibit an alternative vision of agriculture that is "outside of the mainstream", thus rarely studied by academic investigators (Griffith 1991). Organic farming emerged almost exclusively on small-farms and its practices were generally

based on “traditional knowledge” and values (Conford 2001). It was not until recently that agricultural researchers began paying attention to organic practices, and this research still remains limited in comparison to that of “conventional” agricultural systems (Duram 2005; Duram and Larson 2001). As a result of the “traditional knowledge” systems from which it emerged, and the lack of limited attention paid to organic research and outreach, the practices of small-scale organic farmers tend to be highly diverse and individual (Lockeretz 1995; Lockeretz 1997).

According to Dahlberg (1979), the conceptions of agriculture held by most people involve a failure to understand it as fundamentally an interface between humans and their local environments. Radaeke and Rikoon (1997) suggest that theories of “alternative knowledge systems” which have been prevalent in the literature about “indigenous agriculture” for many years have tended to escape the attention of researchers in more “developed” countries. They emphasize that: “The ways in which diverse patterns of decision-making may reflect diversity in the ways farmers perceive, evaluate, and incorporate knowledge are [typically] not addressed [within modern academic literature] (p.146)”. Similarly, Hassanein’s in-depth study of the learning systems of grass-based dairy farm recognized the importance of local knowledge systems and farmers’ reliance on “experience” and “observation” as essential tools in the process of farmer learning (Hassanein 1999).

While many valuable studies have attempted to classify the learning systems and values of alternative farmers, and a number of others have focused on social knowledge systems and community learning, few have acknowledged the potential for “alternative knowledge systems” based on individual exploration, and “trial and error”. Eckert and

Bell (2005) defined small farmer's "mental models" based on three basic themes: 1) Prior values, beliefs, and knowledge influence each farmer's mental model; 2) Each farmer's mental model guides his or her actions, decisions, and use of information and feedback; and 3) A workable mental model of farming is one that meets the needs of the individual, not necessarily one that conforms to recognized "best practices."

This study applies the results of research on "job satisfaction" and an assessment of the ways in which four small-scale first-generation farm families embody the characteristics of "self-actualizing" people in order to describe their motivations for becoming farmers, and the fulfillment they have found in making this choice. It also uses concepts of "alternative knowledge systems" and "mental models" to investigate the learning processes that have allowed these families to be successful in a profession that requires a broad set of skills and a strong work ethic. Analyses of the data presented in the stories using this context seeks to answer the two basic questions: 1) Why would individuals choose a risky, physically demanding occupation that fails to provide the rewards valued most within our society; and 2) how can the learning processes of farmers who choose to engage in such a lifestyle be described? In answering these questions the research engages the concepts of alternative lifestyles, alternative knowledge systems, and mental models in order to describe and explore the learning processes of the four small-scale, first-generation, organic farmers whose stories it presents. Analysis based on the application of these concepts to the farm families upon whom these stories focus will help to answer two fundamental questions: 1) Why would people without a farm background choose to enter a difficult and risky profession that fails to offer traditional

social rewards?; and 2) How have these people acquired the skills and gathered the resources necessary to become successful farmers?

Research Methodology

The stories presented in this paper are based on "case studies" (Patton 2002) of four farm families in Michigan. According to Siggelkow (Siggelkow 2007), "Research involving case data can usually get much closer to theoretical constructs and provide a much more persuasive argument about causal forces than broad empirical research can (pp.22-23)".

The farmers four farm families who participated in this study were selected using "snowball sampling" (Patton 2002). They were identified with the help of several Michigan farming organizations and through informal conversations with a number of Michigan farmers and farm educators. The four families chosen were all willing to participate candidly in multiple intensive interviews and participant observations. They also share a number of similarities in both their personal histories and their current farming systems. The choice of study participants with particular characteristics in common served several purposes. It focused the study on "self-made", first-generation farmers and away from hobby farmers, retirees, and individuals with sufficient off-farm income or wealth to absorb financial losses in their farm enterprises. It also limited the group of farmers to those who choose to use organic or ecological farming practices, direct marketing strategies, and other emerging mechanisms for minimizing financial risk and balancing ecological health with economic return from small acreages, and providing healthy food 0for their local communities. Finally, it allowed useful comparisons of the

similarities and differences between their histories, experiences, practices, and learning processes.

The traits each family shared during the time of my investigation were:

1) Married or long-term relation couples in which both partners participated significantly in the farming operation, and each had at least one child together who lived on the farm.

2) Small-scale farms (80 acres or less), with actual production taking place on only a fraction of their total farm acreage in any given year.

3) Either "certified" organic growers or adhered to organic standards despite choosing not to be certified.

4) Practicing diversified production, growing a wide variety of crops, mostly vegetables.

5) At least 50 percent of their income from "direct to consumer" sales.

6) Resource limited to the extent that they had to find their own way to secure the capital needed to purchase their land or become eligible for loans through public or private financial entities or individuals.

7) No participation in "farmer training programs" through either their formal education, or through programs organized by extension, non-profits, or other institutions.

8) No significant sources of off-farm income at the time that the research was conducted, and had relied almost exclusively on the profits generated through farming for at least four years.

9) Not grown up on a farm that provided them with experience or resources directly applicable to their current farm business.

I chose to engage in intensive studies of a few specific farmers who were willing to open their farms, their homes, and their lives in a way that allowed candid and detailed interactions and conversations related to these and other questions. One or more members of each farm family participated in at least two and at most five semi-structured interviews that lasted between 1.5 and 2.5 hours. All interviews were recorded and transcribed. Between four and twelve farm visits (participant observations) were conducted on each farm and field notes were recorded for each within 36 hours of the visit. These observations typically involved informal discussions with the farmers, often working alongside them. This allowed for opportunities to explore the farm, to ask questions about it's practices, and to get a sense of the production and marketing practices, farmers relationships with employees and interns, and the general culture that was practiced within the farm lifestyle. The intention was to get to know these farmers, in order to better understand their motivations, decisions, learning processes, and farming practices. In addition, I have had informal interactions with most of these farmers either through structured agricultural meetings and events, or through social interactions such as weddings, potlucks, farmers markets, and other chance meetings. No data was recorded from these interactions, nor were issues pertaining to their farms necessarily discussed.

As I tell the stories of four farm families it is important to note that while these are their stories, they are my stories as well. They are the stories of our shared experiences: the things that they chose to share during our interactions, and my interpretation of their words and actions. In addition, a commitment to building personal

and honest relationships with each of these farmers helped to form bonds of respect and friendship through the data collection process. This helped to engender a level of trust that allowed them to share intimate details of their stories. As a result, I was able to develop a deep developing a deep personal understanding of these farmers' histories, motivations, learning processes, struggles, and successes

The stories begin with an historical background of each farm family. The background narrative for each farm family involved in these studies contains more detail for some than for others. The timeline, focus areas, and format of this part of each story somewhat different for each farmer as well. The reason for these differences are: 1) each of these farmers finding their way into farming in individual ways based on their own values and learning processes; 2) the ways in which they remember, understand, and present their histories is influenced by their personalities, memories, and the importance they assign to different events and experiences; and 3) both the depth and the content of the information they shared about their background is necessarily influenced by both my personal relationships with them, and their varying perceptions of what they think I want to know.

The stories continue with an overview of the development of each farm, and the processes of change and adaptation that each farmer has gone through. For all of these farm families this has been a continual and ongoing process. Descriptions of the development and evolution of each farm is a project that is never fully finished in the minds of the farmers themselves. Each of these farmers recognizes this, and these kinds of reflexive learning processes have been an essential element in their success. The stories help to explain not only the reflexivity in the learning process of each farmer but

the way in which individual learning processes have developed and why they have taken the distinct paths that make their farms and their practices unique. Each farmer has adapted to their own situation and influenced by 1) the values and ideas they brought to the enterprise based on their own experiences and skill sets; 2) the way their personal understandings of the world have influenced how they have learned from their experiences and reacted to what they encountered and observed; and 3) by the geographical and cultural differences in the land they inhabit and the people they have interacted with along the way.

Finally, the stories present examples of the strengths, successes, and struggles of the four farm families. These examples were included in order to provide a more analytical perspective of the actions and choices of each farmer. It provides practical descriptions of what has worked for these farmers and what has not. This section also highlights the reflexive learning processes in which these farmers engaged, showing how they reacted to both the successes and struggles they have encountered. While my own analyses and ideas may be more visible here than in other sections of the stories, all the information presented is based on what these farmers revealed about their struggles and successes. I offer occasional reflections on the aspects of their personalities, histories, or trajectories that may have influenced these things.

In order to protect the privacy of both research subjects and other private individuals mentioned in these stories, pseudonyms are used for each.

Story 1: Gilbert and Barb

Getting Started: Motivations and Background

Gilbert has known that he wanted to farm since he was 12 years old. It was the early 1970's, and America was experiencing an oil crisis that increased the national dialog about environmental issues and what we have come to call "sustainability". Gilbert became deeply concerned with these ideas, and decided that the best way to make a personal contribution to addressing problems of them was to become a farmer. "For me, that's when the notion of growing vegetables began", he says. Several years before he met another kid in his neighborhood "…who was into gardening and was growing corn in his backyard" which Gilbert thought was "just really cool". Before he was even a teenager he knew that he wanted to choose a "right livelihood", and the idea that he could do that through farming is something that has stuck with him ever since. In middle school he got his first job picking pumpkins a mile outside of the small town where he grew up. He walked all the way out to the farm after school, and walked home when he was done.

Gilbert continued to work on farms throughout high school. He loved the physical labor, being outside, and the process of being involved in producing something as essential as food. The summer after his senior year, Gilbert fell out of a hayloft and broke his back. Being laid up was extremely difficult for him, because he is the kind of person that always needs to be doing *something*, and up to that point *something* almost always involved physical activity and labor. So instead of doing *nothing* he spent his convalescence thinking and reading about farming. He read Wendell Berry and organic farming magazines or whatever he could get his hands on. Gilbert has just sort of skated through school and wasn't sure about college or what to do next. But he became fixated,

as he describes it, on one thing: strawberries. He decided he was going to grow strawberries “and that was it”.

The next spring he turned over a grassy area (by hand) on a piece of land his father owned, put down some manure, and planted 1000 strawberry plants to start an organic u-pick operation. It is not clear to me what ended up happening to the strawberry patch, but that is the way that Gilbert works. He is always planning and scheming and working and problem solving, but he moves seamlessly and sometimes almost invisibly from task to task and from conversation to conversation.

Gilbert ended up going to college a couple of years later but dropped out after a year or two. Then he “exiled” himself in a Buddhist monastery, but “ kind of flunked out”. After leaving the monastery he got a job doing timber frame construction. This was a good fit for him for a while. Not only does he have a great capacity, even a passion for manual labor, he is an excellent problem solver and trouble-shooter. In fact he believes that that is where his real skills lie. Those things “…suit my intelligence” he says. That is “…what I’m good at, what my strong suit is”. So he excelled at timber framing, and eventually ended up devising systems to standardize the process, implement quality control, and was given the position of overseeing the manufacturing process. Eventually he was making “good money” doing this. But he felt bad about the money because, coming out of the Reagan era he was opposed to paying taxes that mainly went to support the military. So he asked his boss to buy him a tractor instead of paying him for a time. The following year (1993) he bought an organic farm.

The farm is about 50 acres in total, including a dozen or so acres across the road from the original farm that he bought in the early 2000's. All of the production is done on about 15 tilled acres each year, with perhaps an additional 10 acres in pasture.

In the late 1990's Gilbert married Barb, and they have one daughter. Barb is the only subject in these four case studies (not including the children) who actually grew up on a farm. But her contribution to the enterprise is mainly in areas where any production experience she may have had is unused. The farm she grew up on was a dairy, and her contribution is mainly in feeding the chickens, growing flowers, keeping the books, and looking after their daughter.

Farm Development: Production, Marketing, and Learning

In his first year on the farm Gilbert (with the help of a friend) was able to make an agreement with a large natural food chain store that was looking for a local source of organic potatoes. It was not a formal contract in any sense. "I just talked to the buyer… [and] they said they'd buy them". The first problem was that he had never grown potatoes before on any kind of scale. "I just kind of rushed in", he says "back of the envelope type thing". But this seemed like the opportunity he needed to get the farm going and to make enough money to pay the mortgage. So he plowed up two acres and just started planting. The process was based mostly on intuition and the ad hoc experiences he had growing things in his youth. Part of the process was based on the fact that when he was growing up, he and his dad (a teacher) "…made a garden". As he tells it, his dad

> …insisted we only moldboard plow it, that we not disrupt the soil structure by disking. So I had this kind of vision that I wouldn't disrupt… I'd just use the moldboard plow to plant potatoes. But then I wasn't sure how deep to put them, so I just plowed the whole damn field and dug some trenches and put them in. Then I had all this grass come back up in-between the potatoes, and… I spent the next 2 months off of work pulling

> the grass out by hand for these freaking potatoes. I was thinking well they're worth fifty cents a pound, I've got 30,000 pounds here that's $15,000 that will get me through the year here. Then… I got busy at work again [timber framing]. We got a big job an hour away and I was like 'boom: big money', so… I let the potatoes sit, and I'd just kind of hang out and watch the grass grow. I didn't know what to do about bugs and there wasn't anything organic to spray on them and I had [Colorado Potato Beetles] right away. So I just let them take what they would.

But he managed to get a crop and "…hauled them in, these potatoes. I didn't even have a washer [to clean them with]" he says.

Since that time he has learned a lot about growing organic potatoes, and because his first few years of farming involved growing potatoes for wholesale almost exclusively, he maintains a special fondness for them. This is something I discovered before ever knowing that they were his first crop. After watching him spot spray potato beetles for hours, and having been part of a large crew he sent out to mound them, and a smaller group he set to work picking beetle larvae off the leaves I asked him about his "potato thing". He answered me with a smile and a double meaning: "Just dig 'em. You plant 'em, you dig 'em. The fact is that potato production is not nearly this simple, as he well knows. He has spoken to me at great length about his observations of potato beetles, which he has spent hours watching. He can go on and on about proper rotations, and the way the prevailing winds and the contour of the land affects their ability to find the crop; about their flying abilities; and about when to treat for them. Through his battles with them, it seems that he has actually gained a respect for their destructive ability. "It's like a wildfire," he says. "It's like if you start a grassfire, once those bugs start hatching it can be just like a fire. They can move through the patch in a wave and [destroy] everything."

Gilbert grew his farm slowly, partially because he had limited options in the beginning, just growing potatoes for the big retail chain and a local coop. Partly because

he kept getting called back to his job as a builder which, at least in the early days, helped to pay for equipment, the farm mortgage, improving the farm infrastructure, and eventually the additional piece of adjacent land that was added on to the existing farm. He talks about getting "called away" from the farm for construction jobs, but he also recognizes that the income from those jobs were what allowed him to stay in business before the farm had become self sufficient, and allowed him to "grow it slowly" which is something he regularly emphasizes. He was interested, he says, in seeing it "…evolve into something that was an ongoing adventure, a project…". Though the whole enterprise was a risk, one that he was willing to take in order to fulfill the farming dream he had conceived before he was a teenager, he was realistic enough to know that he had to develop his skills and his markets before he could quit his job and do it full time. Even into the early 2000's he was doing this work in the winters in order to augment farm income, and this was essential to allowing the farm to grow slowly. This allowed him to develop his vision, his skills, and his markets over time; to be reflexive in his learning processes; to expand his knowledge systems to include equipment maintenance and production of a wide variety of crops and some animals; to make it through lean years or those when the 'potato beetle wildfires' burned particularly hot; to purchase equipment, additional land, and materials for the farm infrastructure; and for him to experiment and take risks while developing the farm system.

When Barb came into the picture, it allowed a new perspective to emerge, and their partnership was important in making the farm their sole source of income. Over time, Barb and Gilbert developed a division of labor that takes advantage of their individual interests and strengths, and precludes time-consuming negotiations regarding

the allocation of daily tasks. Barb does the books, manages community supported agriculture (CSA) distribution and customer relations, does the bulk of the childcare during the day, feeds the chickens, and manages flower production in garden areas near the house among other things. Gilbert manages the vegetable and dairy production, spends a fair amount of time fixing equipment, and during the winter is usually involved in building projects around the farm.

In 2001 Barb and Gilbert started their CSA, which required increased diversification of the farm operation and a continuation of the gradual scaling-up that had been happening over the years. The first year they had a limited number of CSA members. But by 2008 they were nearing 250, and were branching out a by selling excess produce to members who picked up their boxes on the farm, and doing a "Thanksgiving CSA" that included a turkey, potatoes, other root crops, and fall greens. They were still doing farmers markets and some wholesale as well. Gilbert describes CSA as "the bulls eye on the marketing dartboard" meaning that it has now become the main priority, as well as the primary source of farm income.

Because they had already ventured into farmers market sales, which required a range of products that were available throughout the growing season, the change was not completely drastic. In fact, it just seems to have been a part of the slow and steady growth that the farm had been undergoing since its inception, and continues to undergo; a process that involves constant learning and reflection. The recording of my first formal interview with Gilbert starts with him musing about green beans. The transcript makes it seem like the recorder was turned on in the middle of a discussion, and it probably was, since the process of getting to a place where we could sit down together would, as usual,

have entailed a continuing conversation. He is fretting about green bean harvest, but his main issue is actually about labor and the development of the CSA.

> I'm at the point now, that with how many beans we do, that it's either get mechanized or whatever. You know, it's always a question of level… when we go to do our distribution we put our boxes together we don't put green beans in the box we put 'em on the side in a bulk container and tell people to take two quarts because we don't have 'em picked by the time the boxes go together… We're realizing we need to get everything in the box and just say here is your share and that's it.

While this may sound like a fairly mundane issue, it is indicative of the fact that he is always thinking, working, and striving to make the operation run more smoothly. It is a refection of the constant process of learning, decision-making, and problem solving that he is engaged in. I asked him once if his Buddhist practice had informed his farming practice. To which he answered,

> Yeah I think it's influenced it. Everything has influenced it… Everyone who's come through has influenced it…. The Buddhist practice, it's very austere. You know, you're going to sit. You're not going to drink beer. You're not going to get distracted with your emotional relationships. You're not going to think about your past. You're not going to think about your future. You're just going to sit there, and you're going to sit there, and you're going to sit there. And all this stuff might come up internally in your mind, but you're going to keep on sitting there. And there might be a few things that you're going to get, like after you've been through all that. You know you might have a little humility, and you might be willing to you know, like, let the storms come and go.

In my experience, Gilbert has never been very good at "sitting there". He works seven days a week, sunup to sundown. I watched him harvest until after sundown with a headlamp on, and it does not get dark until 10pm in the summer in Michigan. He also once told me that "…the whole point of this [farm] business was kind of a hands on manual labor, you know, direct thing for me, I mean I wanted that kind of work." So the fact that he "flunked out" of a program that required him to just sit, is not surprising to me. At the same time, there are many aspects of his farming practice, his personal

interactions, his thought processes, and his lifestyle in general that are clearly influenced by the tenets of Buddhism. These include: 1) letting go of an emphasis on worldly possessions; 2) accepting suffering as an inherent part of human experience; 3) understanding the limits of control, and accepting that events and experiences constantly "arise" and change; 4) not being driven by ego or engaging in hierarchical, power-based means of interacting with others; and 5) seeking a meaningful way of existence through virtue, mindfulness, concentration, resolve, and discernment.

Gilbert's activities during a day on the farm, especially in the summertime, are like a bee buzzing in a field of flowers. He is constantly disappearing and reappearing, shifting seamlessly from job to job in a way that sometimes appears haphazard, and is not necessarily pre-planned, but is clearly intentional. He is able to manage his labor, perform the many small tasks that require his attention, integrate work with both family and social life, and to find solitude when he needs it. At one moment he is harvesting arugula and chatting with the interns; then he is over at the packing shed washing potatoes. Twenty minutes later he is strategizing with his brother-in-law about how to fix the hydraulics on a tractor. Then he is teaching interns how to plant collard greens. Somehow he still finds time to make four pizzas for the communal lunch.

The kind of multitasking and moving from project to project that fills Gilbert and Barb's days is neither frantic nor random, though it may seem that way to the casual viewer. There is no playbook, they simply decide what the next priority is and move to it. There is a kind of intuitive motion that they have developed over the years of running the farm that appear to take them almost seamlessly from place to place and from task to task without any long discussions or drawn out negotiations. Gilbert puts it this way:

> Part of the magic is the looseness, but part of the other problem that you run into is like, the whole machinery of business and having to have stuff done at a certain time, done in a certain way, and now figuring out what that is and what it isn't is... I think the whole practice of something like it's not what you're doing, almost as what you're not doing. Like you're taking yourself out of a situation. Maybe there's a dualistic notion of world and then not world… you're removing yourself, and then you're pursuing your schedule. You're locking yourself down into a routine. So then the routine carries you, the routine becomes the path of liberation, but somewhat paradoxically, you know it's paradoxical because it just is the nature of how things are to be a bit paradoxical. So there's a lot of tricky shit and then maybe not so tricky. But yeah, you just get engrained in that tradition and you just follow it, you get up at 5 every morning and you do your routine."

Gilbert describes himself and the way he sees his farming activities as "…an adventurer and that's what I am, somewhat of an adventurer, and I do have some technical skill. I mean I'm kind of, if you want to define it… I'm a technician that's fallen into a business. I'm a worker, a technician, that's trying to run and manage a business now, and it's kind of like halfway manager halfway technician."

This farm is also one of the most communal and egalitarian that I have ever been on. No one has a formal title. The roles of interns, employees, volunteers, and family members evolve according to the abilities, experience and willingness to take on responsibility. Gilbert consults with his more experienced and capable employees or interns when decisions about priorities and tasks need to be made. These consultations are typically short, but don't take the form of orders. He is usually the one that initiates suggestions for the prioritization of tasks, but is always willing to entertain suggestions and indirectly encourages others to take initiative. He has facilitated a system in which a few people know tend to know what needs to be done and require very little in the way of direction. When it is given, it is typically phrased as a statement about what tasks he believes should be given priority. "We really need to get some broccoli planted today",

"I'd love to have some cucumbers for market tomorrow", or "the weeds in the squash rows are getting a little bit out of control" are the kinds of statements that tend to spur action. Typically there are groups of people or individuals working on different tasks simultaneously, but this seems to happen with very little oversight or issuing of direct orders.

I have also never heard Gilbert chastise a worker for being "too slow" or not doing something "the right way". He tends to recognize that different people have different capacities and different strengths, and tries to assure that they are matched with the tasks they are most proficient at. The farm crew tends to be driven to work hard and be efficiently by a combination of the example set by the most proficient workers, and a desire for approval from Gilbert or other more experienced and charismatic workers. Positive statements like "man, we really got a lot of greens planted today, and don't those rows look nice", or "those are some nice looking boxes of tomatoes" tend to inspire pride, camaraderie and desire for more positive reinforcement. Negative statements like "too bad we couldn't get more carrots picked today" or "we should probably go through these boxes of spinach and take out the yellowed leaves" tend to carry a lot of weight as well, since they are understood by most to be observations about aspects of the farm as a whole rather than passive-aggressive comments meant to place blame.

There is also recognition that everyone has certain strengths and different capacities. Some people are good at selling things at the market – chatting it up with customers, and getting people to buy the produce. Other people are really good at seeding flats of vegetables for transplant. Some people can hand weed quickly without damaging plants, and others are really good at picking raspberries. People who have gained Gilbert

and Barb's trust and respect are encouraged to take initiative if they have certain projects that they want to focus on. This system has many advantages, but it also has drawbacks. Gilbert and Barb have a more or less "open door" policy for their workers and volunteers. Interns who live on the farm are expected to work 40 hours a week or so. The open door policy means that it is difficult to know what the crew will look like or how big it will be on any given day. Once an intern is "hired" there is also strong commitment to them. Intern's that don't turn out to be very good workers, are not "let go". Workers who show up sporadically or for parts of a day, similarly, don't tend to be chastised or confronted. Gilbert has expressed his frustration with the fact that workers are often unpredictable, and interns are sometimes not adept at getting farm work done efficiently, quickly, or without a lot of personal attention and training to accomplish even the most basic tasks.

Gilbert, Barb, their interns, their employees, and any visitors who happen to be at the farm on a given day typically eat lunch together at a large table in Barb and Gilbert's house. This afternoon meal is prepared by one of the participants on a rotating schedule (Gilbert always does Fridays). This is part of the allure of the farm that has helped them develop a certain reputation or "fame" and that helps draw interns, volunteers, and paid workers to it. The relationships with these people over time have been extremely important to Gilbert and Barb, and they have always allowed the people they have come to trust and count on to pursue their own goals within the larger context of the farm. Some of the more committed and long-term workers have been allowed space to develop their own farming and building projects. There are certain gardens and places on the farm that are still referred to by the names of the people who created them, even though that person might have left years ago. The farm is very much a reflection of Gilbert and

Barb's personalities and values, but a part of that is entails an interest in, and an ability to let others be part of their experience.

Strengths, Successes and Struggles

Running their own markets (through CSA, farmers markets, and restaurants) definitely has advantages over wholesale for Gilbert and Barb. Individual crop failures are not as dire since they now grow a broad diversity of crops. If it is a bad year for potatoes, it is not necessarily a bad year for the farm as it would have been in the beginning, since it might be a good year for carrots and kale and sweet corn. It also gives them a higher price point, since they are selling direct to consumers (avoiding the "middle man"). All of their CSA customers pick up at the farm or the farmers market, which allows them to limit the time and cost of delivering produce, but also gives them a personal interaction with their members, which helps with retention. They have also branched out into some high value crops such as gourmet mushrooms, raw milk, edible flowers, and berries.

Growing the farm slowly, and developing markets gradually has clearly been a benefit. It kept them from overstretching themselves financially with large investments in equipment and labor. It allowed them to learn what worked for them and what did not. It helped to mitigate failures with new crops. It has allowed them to meet customer expectations and to build a reputation for producing high quality products.

The division of labor between Gilbert and Barb is something that works well for them. They appear to compliment each other, and understand that they each have different interests and strengths with regard to their roles on the farm, which allows them to focus on the things they each do well.

Like the other four farms in this study, finding and managing labor is one of the most difficult issues for Gilbert and Barb. They have a vibrant internship program, and the communal aspects of the farm, their laid back management style, and Gilbert's 'cult of personality' attract a lot of people who want to explore farm work for various reasons. But there are always issues with managing people. "You never know what you're going to get", as Gilbert puts it, "or whether you're going to have [sufficient labor] at the right time." He emphasizes the importance of having:

> …people that know how to pick with two hands, people that know how to bend their back, because what happens is there's just a whole, I mean it takes a few weeks if not a few months to get the mindset, to get the body and the mind to be able to do the work, I mean it's simple work, it's straight forward work, but if you want it done in the right proportion and the right quality it really helps to have people with experience… I welcome anyone who comes here on any level, but the unknown with that, and the transient nature of it is not consistent.

Equipment and infrastructure maintenance and repair is a constant part of farm management. Barb's brother spends much of his time on the farm working on either repairing or modifying farm implements and the vehicles used for both farm work and product delivery. Despite the fact that Gilbert's vision for the farm was mainly "labor based", equipment has become a necessary part of the farm production system.

Gilbert now spends most of his winters repairing or building new farm structures and buildings. He is particularly adept at the latter due to his many years working in the building trades. But it is still both an expense, and something that takes a significant amount of time. On the other hand, he is extremely resourceful, and very social. The result of this is that he often gets building products and other kinds of equipment for free, or at a bargain price.

Gilbert also expends a lot of effort dealing with insect problems. This seems to have been mitigated somewhat as the focus of the farm has moved from wholesaling potatoes toward growing a diversity of crops. But he can still often be seen wearing a backpack sprayer, fighting the many insects that can cause havoc on an organic farm with the limited arsenal of control products that organic producers have available. He spends a lot of time thinking about crop rotations, wind direction, companion planting, and many of the other things that insect control entails.

Weeds are always an issue on an organic farm. While increased mechanization has helped to keep weeds down "between rows", there is a lot of time expended in hand weeding between plants. This issue is closely related to that of labor. Weeding is a relatively straightforward task once someone knows the difference between a weed and a crop plant. But weeding quickly and efficiently is not a skill that everyone has, nor is it necessarily teachable. There is a big difference between effective and efficient weeding, and 'plucking', and the type of labor that Gilbert and Barb's farm attracts is usually not highly skilled.

Finally, water can be a major constraint. There is a lot of work that goes into laying drip irrigation as well as hand watering transplants and high value crops. Because watering is expensive and labor intensive, decisions about where and when to water are always difficult. They entail a cost/benefit analysis that is always imperfect because weather cannot be predicted.

Analysis - Motivation and Fulfillment

Gilbert's decision to become a farmer at the age of 12 was inherently values based, and though he reflects that: "as a kid you look at those things kind of simply" there

is still a strong values component to his farming goals and practices. His motivations do not appear to be significantly different from those emphasized in the research on small-scale farmers presented by Gasson.

Independence is clearly an important issue for him. It was one of the reasons that he left the more lucrative field of timber frame construction. His daily activities as well as the decisions that he and Barb have made together about how the farm should be run, and how it's products should be marketed reflect the importance of this factor. He has indicated that his exit from the much more lucrative field of timber frame construction was related to certain disagreements with his boss (which he describes as the kind of fight that "brothers" have), and the fact that the work required him to constantly move around and deal with other employees. At the same time, he explicitly references the autonomy he had in that job as one of its most attractive features.

Open air and a healthy way of life are certainly important to him, though they are not something that he often mentions explicitly. Enjoyment of the work itself, on the other hand, is something that he constantly refers to, and the fact that he is engaged in it in some way during almost every waking hour of every day is evidence that it is central to his motivation. The challenges presented by the farm are also something that he is constantly focused on, though it is difficult to know if this is a motivational factor, or something that he enjoys. He does, however, believe that it is something he has an innate proclivity for. "…Trouble shooting and problem solving suits my intelligence…What I'm good at, what my strong suit is, is just trouble shooting most things." He feels this fits with his role as a farmer and is consistent with Obrien's work citing "skill utilization" as a predominant factor in work satisfaction.

The overlap between Gilbert's values, motivations, and concept of the world and the characteristics of the self-actualizing person developed by Maslow and Rogers, are almost uncanny. His perspectives of himself and others are certainly "realistic". He knows what he is capable of, and accepts what others are capable of.

Although he is not "creative" in the traditional sense of the term (artistic, musical, poetic), Gilbert *is* creative within Maslow's conception of the term. Maslow (1968) states that: "All my [self-actualized research] subjects were relatively more spontaneous and expressive than average people. They were more 'natural' and less controlled and inhibited in their behavior, which seemed to flow out more easily and freely and with less blocking and self-criticism. This ability to express ideas and impulses without strangulation and without fear of ridicule turned out to be an essential aspect of SA [self-actualizing] creativeness" (p.136). This description fits Gilbert perfectly.

For example, Gilbert got tired of sending interns out to the field to put in transplants 6 inches apart, only to come back and find two 300-foot rows with transplants that were 4 inches apart. So he took a piece of plywood and drilled holes large enough to plant through 6 inches apart that can be laid across two rows, and just moved along the rows once the transplants have been put in through all the holes. He also built a flatbed onto an old golf cart that can be loaded with CSA boxes or tools, and driven around the farm.

He is one of the least "controlled or inhibited" individuals I have ever met. His willingness to take risks and to express his ideas and impulses confidently and without concern for the potential of social ridicule is expressed through both his choice to farm, the alternative farming techniques he has adopted, and his interactions with others.

Gilbert seems to express exactly who he is without fear of failure or judgment. Both spontaneity in his actions and a high level of reciprocity for the people with whom he interacts are essential elements of his character. He is both an individual thinker, and a person who "exhibits a high level of compassion and respect for others" as evidenced by the way he accepts and treats even his least productive interns and workers. His need for human companionship is expressed through both the unusually communal aspects of the farm, and his relationships with other people within his community including myself. As previously noted he is a self described "trouble-shooter" something that corresponds to a "problem centered approach to life".

His yearning for spirituality is clear from his continued participation in the study of Buddhism. He is not particularly concerned with material comforts aside from "good food" (many of his outbuildings are cleaner and more organized than his home house, which is small, full of muddy shoes, has peeling wallpaper, and is set up in a way that is more practical for communal meals and book-keeping than for "lounging around" or sitting in comfort.

Finally, he is certainly detached from highly structured bureaucratic institutions with one exception: organic certification. He does lament the loss of a local organic certification agency with more personal connections to the farmers it serves. Though he recognizes that he has benefited economically from organic certification and the increase in the popularity organic that it has fostered, he is ambivalent about the process and the structure of the certification system and not particularly diligent about the record keeping it requires.

Analysis - Knowledge systems and Learning processes

Gilbert has always been independent, and "alternative". He never had any formal agricultural training, does not go to conferences, and though he read a lot about organic agriculture in his early years, he is not one to keep up on current research. His learning processes, as the story of his first experience planting potatoes illustrates, is based primarily on trial and error, observation, and experimentation. He admits that many of the ideas he has applied were not his in the first place "I didn't come up with the idea of CSA" he says, and he claims to have learned a lot from the people that have worked with him on the farm, as well as through a loose network of other farmers in the area. But his primary learning processes are based on the reflexive process of seeing what works and what does not and trying to come up with ways to improve the way that things are done.

Story 2: Milo and Sabine

Getting Started: Motivations and Background

For Milo and Sabine, the decision to enter farming full time was facilitated by an incident involving a duckling named Walnut. At least that is how they tell it. Walnut was kind of a runt, and was being neglected by his mother, so Sabine adopted him as a pet. "It was the coolest little duck", Milo remembers. It followed Milo, Sabine, and their two dogs all around. These were not small dogs, but they seemed to accept Walnut. He would sleep with the dogs outside at night, this little duckling, sleep right by their heads, and they never messed with him. Everyone loved Walnut.

Sabine and Milo met while working together at a food co-op in Michigan. Milo had become interested in organic food and farming several years before. It started "…in a

sociology class that was run by this anarchist professor that taught about… these work collectives that are supposedly happening out West, planting the forests and hillsides". Around the same time, his sister introduced him to organic gardening. She gave him a book that he describes as "…some kind of imprecise collection of garden lore, which included some references to biodynamic, which is the most intriguing." He ended up traveling to the Pacific Northwest and interning for two summers on a progressive organic farm. "The combination of going to the Pacific Northwest to learn about anarchists working together and doing it under the pretense of working on an organic farm was perfectly intoxicating", he says.

Milo is the only person within the group of subjects whose stories I tell here to have done anything close to "farm training" or an "internship". In 1997 he spent 6 months on an organic farm in Oregon. As he puts it

> …that six months is pretty much all it took to convince me this is the lifestyle for me. For one it's under the radar enough that I guess when I was 19 it was important to me to be important in some field of the world. If I picked some obscure one where talent wasn't supposed to lie, maybe I thought I'd have some fame and success or something. But you know that's tempered by actually doing it and experiencing it, that part goes away. But just the short attention span part of farming was really attractive immediately. You didn't really have to focus and be a person who only knew one trade, I mean it was like everything, carpentry, fixing, tinkering, and inventing, gardening, farming you would do it all at the same time.

After returning to Michigan he tried, not very successfully, he says, to farm a piece of land for a season. Milo realized that the internship and one season of farming on his own were not sufficient to give him the skills he needed to run a farm successfully. He says he realized then that he "had to find another farm to partner up with, learn quite a bit more".

That is about the time he met Sabine. Sabine was dissatisfied with her life, unsure of her trajectory, and looking for something different. “At the time I had a husband and a garden, and both of them were failing.” Their courtship began through time spent growing and selling (working at the co-op) organic food together. There is irony in their love ‘blooming’ in her failing garden. Though they are not the first couple to find love in a garden, they were not expelled from it. On the contrary, they have been growing and selling organic food together ever since. But they certainly did not think about these things at the time, nor did they read anything into them. They just fell in love.

Around the same time Milo met an older couple with a biodynamic fruit orchard who “…liked the fact that [he] could drive a tractor okay and do veggies on the side so [they] said come stay with us.” The idea seemed like the culmination of a dream to Milo, and Sabine was up for any kind of change. They were to do the bulk of the production and marketing while splitting the profits in a way that sounded good in theory, but did not end up compensating them very well for the amount of work that they put into it. Not only that, but they were living first in a rustic hunting cabin, then a rotted out trailer on the farm for part of the time, “…bathing in lake Michigan”, and commuting back to their home near the food co-op (where they were still working for a part of each week). Still, it was romantic, fulfilling and satisfying for them in many ways. They were doing something meaningful, figuring out how to be more self-sufficient, learning a lot about running a farm, and figuring out that it could potentially be a viable way to make a living for them someday.

After two seasons the romance was gone. The farmers they were partnered with were kind of eccentric, and not really into farming anymore. Milo and Sabine were only

taking 1/3 of the profits, there were other people moving in on the farm who where there all the time, and the situation started to be difficult and unpleasant.

Then one day the farmer/owner came up to talk to them. He recently had surgery, his leg was numb, and he could not feel his foot. He was just talking to them and looking up in the air, and the next thing they knew he was standing on Walnut. Standing on the friendly little duck. "You're on it" Milo yelled at him, but he was oblivious. Milo actually had to lift his leg off of poor Walnut, who died 20 minutes later. For Sabine and Milo it was metaphorical, with these other people moving in, and the farmer so oblivious he crushed little Walnut to death. This was the incident that made them realize they needed their own place.

According to Sabine, farming "…opened this world where we were really part of the cycles of the seasons and the land and I loved the idea of doing many different things, I'm not a specialist in anything. I like to be a generalist and farming certainly speaks to that. And not following the path that had been blazed out for me…" (she had been a medical student, living a fairly conventional "consumerist" existence, and had never really found that life fulfilling). For her, farming was "a way to be creative and independent."

To Milo, it had to do more with creativity, and a kind of rugged individualism. But it also seemed like something that people were overlooking, and he knew he could do it. People were pushing them toward it, life seemed to be pushing them toward it. "It just kind of fell into place," says Milo. "I see my work in it as more in line with my job as a paper boy when I was 9 years old" he says. "Those are the skills that inform or motivate my ability to get up in the morning and do something when no one tells you to do it. So

it's kind of just an entrepreneurialism with a green bent." Their motivation to farm organic was driven by their values about the environment and healthy food, but it was also about the market and what other people wanted.

Farm Development: Production, Marketing, and Learning

The following year Milo and Sabine rented a piece of organic farmland, moved into another trailer, and began growing food as their primary job. This situation too, turned out to have a number of unexpected drawbacks, primarily related to their relationship with yet another set of eccentric and opinionated landlords. The relationship was not bad for the most part, especially in the beginning. It was just unpredictable, and took a lot of work. But their farming enterprise was fairly successful, which was both satisfying, and gave them more confidence that this was something they could do successfully. As their relationship with their landlords became stranger and less amicable they began to look for a farm of their own.

Prospects did not seem particularly good. They lacked the capital for a down payment, did not have a particularly extensive history of farming, or lucrative off-farm jobs to help pay for acquiring and developing an organic farm of their own. They were convinced that if they could find their own land they could be successful on a small-scale growing a diverse array of agricultural products. They both dreamed of a place where they could be financially independent and build their own life; a life with purpose, independence, comfort, and meaning. It was just a matter of finding that place, and the means to acquire it.

Through a friend, Milo found an advertisement in an obscure local newsletter for a 40-acre section of an organically certified farm. A couple of weeks later, they met with

the owner of the land, a retired farmer and educator who had been instrumental in developing the organic movement in Michigan since the 1970's. He had already sold a section of land to another young, small-scale, diversified organic farmer a couple of years earlier, so he knew what he wanted: someone who was going to farm the land organically and help build the local organic movement; who would be a good neighbor and perhaps even part of a sustainable community that he envisioned around him; and someone who could pay the mortgage, since the land was basically his pension. In their first meeting, they got along great. Milo describes it as "kind of an instant connection". It was clear to all that they had shared values about organic farming, and a vision for a sustainable community relationship. In an interview I did with the retired farmer he talked about those first conversations and his relationship with Milo and Sabine while they were beginning their farm. "Milo used to talk about 'the autonomous region'" he said, "…how we are creating an autonomous region out here. You know, it's so sweet." The final part of this comment infers a paternalism that he seemed to have with both the farmers to whom he ended up 'selling' sections of his land. In any case, they quickly established a personal relationship and an agreement for purchase of the land, house and barns under a "land contract"[16]. The main stipulations were that they agree to farm the land organically, and that they come up with a down payment that would prove their

[16] A 'land contract' is a direct purchase agreement between a buyer and a seller. The seller retains title to the land, and the buyer essentially pays 'rent', but with the stipulation that the rent payments are, like mortgage payments, being applied to an agreed upon price for eventual ownership by the buy/renter. If the buyer/renter defaults on their payments, they can be 'evicted', since the seller retains title to the land until the agreed upon purchase price has been paid in full. The main benefits to such an agreement include the fact that the potential buyer does not need to qualify for or obtain a bank loan, and interest payments are not made to a bank or any other third party.

commitment to being there long term, but that was reasonable enough that they could manage to procure it within an agreed upon period of time before taking occupancy.

The next summer, Milo and Sabine signed a contract with a large grocery chain rented several organic acres on an established farm with a good reputation, and managed to grow enough cherry tomatoes and red peppers to make the down-payment on the land. They delivered on their crops throughout the season, but a couple of weeks prior to their land contract closing date the retailer still had not paid them.

Milo called them up, and told them "we need the money". The retailer asked if they had turned the payment orders into the corporate office, This was all together new and not something they knew they were supposed to do. They put together all the delivery slips, sent them in, and just a couple of days before the closing date they received what Milo described as "the biggest check I'd ever seen." So, they "bought" the farm.

They had little equipment, aside from what Milo described as "a poorly built, cheap Chinese tractor…that more or less broke in half…" at the beginning of their first farming season. Luckily, they had bought land from the right farmer, and that paternal relationship proved handy, because they were able to rent his tractor at a reasonable rate from for their first season.

Both Sabine and Milo admit that without the generosity of her parents who, despite a healthy dose of skepticism about the economic viability of their chosen profession, agreed to lend them money in lean times and when they needed equipment or infrastructure to keep the farm going, they never would have made it. Milo and Sabine credit "leaps of faith" on their part, on the part of the farmer who sold them the land, and

on the part of their parents with affording them the opportunity to build a viable enterprise. By the time I began working with them, their farm was basically self-sufficient[17].

On my first visits to the farm we had all sorts of interesting adventures. Among other things, we rescued a piece of irrigation pipe sunk in a pond on a cold day in March by leaning over the side of an unstable canoe with a makeshift hook. We built a pump house out of logs cut from tree branches on their property and whatever we could find in the old barns (including a barely sufficient number of nails that had to be scrounged from every nook and cranny). We managed to build a fence with corner posts, also cut from tree branches, at least one of which we had to put into what was basically a swamp. I happened to have a couple 40 lb bags of quick drying concrete in the back of my truck that might still be holding that corner post in place. I was there the day they got their first 3 goats, and despite our best attempts to pen them into a section of the barn using, again, whatever pieces of wood, nails, and rope we could find lying around, I ended up chasing one of the goats through a 3 foot crawlspace under the barn, while trying to dodge 50 years of rodent excrement. I also helped to somehow move a 500 pound stainless steel milk tank used to rinse vegetables out of a sunken room in an old barn into a new packing shed using an improvised system of winches, brute strength, and vehicles that kept getting stuck in the mud. I was involved in tearing out and rebuilding the walls of a chicken coop that it turned out was insulated mainly with dead rats and old straw, and I

[17] Milo has done piecemeal work as an organic certification inspector over the years, the have occasionally received modest stipends for giving talks at conferences or in classes, and their parents have occasionally helped out with small gifts (for example, Milo's mother bought them an old dairy cow for Christmas one year).

helped clear a section of land that contained the decaying remains of not one, but three old hay bailers.

I was not there the day their first cow decided she would rather venture into town rather than follow her calf into a new barn during a blizzard that dumped several feet of snow, and regret not witnessing all three police officers on duty that day in their small town helping to herd her back to their property and into the barn[18]. Nor was I involved in the construction of a mobile chicken coop patched together on the frame of an old wagon; an experiment that turned out to be a failure because the chickens were unable to find it again once it was moved 20 feet across the field. I did help to build a row of greenhouse benches that will probably outlive me. Their construction involved not only pounding posts through an old concrete silo slab and severing the power line running to the irrigation pump (it is a wonder that no one was electrocuted) but also digging a number of old railroad ties out of the frozen mud, and securing them to the top of those posts. There are many more such adventures I could mention, but these examples should be sufficient to emphasize the ad-hoc, experimental, innovative, and resource conserving nature of farm projects at Milo and Sabine's, at least in the early days.

Milo and Sabine grow close to 20 acres of vegetables and flowers on their farm, and unlike the other farmers whose stories are told here, they did not start out gradually. One reason for this is that they had more experience farming elsewhere when they finally got their own place. Another is that they did not have much of a cushion. There was no money tucked away, no significant off-farm income, and they did not buy their place for

[18] My favorite quote from all of the interviews was from Sabine's telling of this incident: "Who do you call about a cow in a river?"

a song at a land auction. Milo puts it this way: "Every month we need to make our $1000 land contract payment, or else we're done".

There are elements of their personality and decision-making processes that contribute to this too. In 2008 Sabine told me,

> We tried to be a little bit better financially this year and actually make a budget, but [their venture into raising cows] was definitely from the hip… So there we are on our slippery slope again… this farmer offers us a second cow with one eye for only $400, and both of them are pregnant. So there you go, our one cow we were going to get turns into four.

Milo is a bit more analytical and abstract when describing this tendency:

> The CSA really does just let you swing for the fences occasionally, because you get this big pile of money in the spring…[and] in any business you have to take risks and find out what the boundaries are in what you're able to do. … And I think some of the looseness and free-spiritedness… some of how the farming processes are kind of manic… there's a lot of progress and creativity and production that can come out of that seemingly chaotic mess… We couldn't live with ourselves if we were too organized or too over-the-top controlling. It's just not our nature.

Milo and I talked a lot about his learning process as a farmer, and it is something that he is very introspective and articulate about. In the simplest sense, he sums up his learning process as "just making a lot of bad decisions". By this he means that it has been a process of trial and error, observation, and learning from mistakes. For example, Milo is thinking about fertility "all the time". He described this process to me in detail.

> There's a lot of cases on new ground where you think it's going to be right. You do a little compost here, you do a cover crop, and it still doesn't come out right, the nitrogen curve wasn't met for the crop. You don't really understand it until you do it over and over again and see it happening, you don't have confidence in the nitrogen's going to be there or it's got the moisture for the crop until you see it dozens of times and see it fail, and see it – a lot of things about cropping, and soils, and fertility you could read 10 times in the kind of major works of the organic movement but you still don't get it until you see it work. Like okay, like the roto-tiller it's the worst thing, damnit you know I'm always using it because I need a seed bed or I need to get a crop in and it's the only thing

> that gets that trash broke up enough to where I can plant, and then years and years of it, seeing where you're using it and where you can get away with not using it, it's like the thing broke one day and I just never fixed it. It's like get rid of that, because where you were under-tilling and leaving the sort of coarsely tilled and not bashing apart that core structure, boy stuff just grew enough better to overcome the trashiness. You maybe do a little more hand hoeing instead of cultivating because you have clods, but I mean the benefit of not beating [the soil] apart, you get so much – a better nitrogen response, you get a better, just better carryover for your compost, you get more optimal mineralization for your organic matter that you're putting down. I was really glad to get rid of that thing, so we've gone to a lot of under-tilling, all the books say it you know, but at first I was like you've got to be kidding me how am I going to make this happen with a field looking like that? You'd try it [less tilling] the first few times you'd just get swamped in weeds, you can't cultivate it, you can't hoe it very well, but now I know how much I can get away with under-tilling. I've done it enough times I can just see it, I can see it and I can know it, and you can't get it from reading, you can't get it from listening to me talk about it, there's just no substitute for integrating it with your intuition.

The first time I visited their farm, I was amazed by the amount of weeds I saw. We chatted for a bit, then I told Milo that I just wanted to get dirty, help out, and see how things were done. So he set me up with two teenagers he hired and set us to work weeding kale – hoeing between the plants and hand weeding around them. The weeds were totally choking the plants, and it was not easy work. But I have done a lot of weeding and a lot of labor and I knew how to work hard to get that kind of job done. My enthusiasm and vigor seemed to spur the other guys on and after four hours we had totally cleaned out two 200-foot rows. I stood at the end of the rows with Milo for a minute or so surveying the scene, not talking. My hamstrings were twitching, my back was cramping, and my hands were full of horse nettle scratches and thorns. But as I looked down the rows I was full of pride at what we had accomplished. They were clean and beautiful. Finally Milo turned to me shaking his head and said "man, that was an $80 weed job. Would've been at least half again that if you hadn't volunteered. And it's just

two rows of kale." This was somewhat deflating to me at the time. But as I got to know Milo better I came to realize that what he had been thinking as we looked down those rows of kale was "what just happened might not have made economic sense." More importantly, "there's got to be a better way to do this and I need to figure out what it is."

By the time of my last research visit to the farm, the amount of hand-weeding had significantly decreased. The year before, Milo and I harvested carrots in weeds that were three times their height. They were beautiful, sweet, delicious, and surprisingly healthy and good-sized carrots. This year, I learned to use his rigged up flame weeder: a camping pack with a butane tank in it with a hose attached to a hand held nozzle that you walked down the row with, frying emerging weed seedlings before the crop planted in that row began to emerge. while doing this I listened with only a general understanding of the technical aspects, to his description of the multi-bed, tractor driven flame-weeder he was planning to build.

When I asked him once what he thought the biggest surprises for new interns who come to the farm were, he answered:

> I think they're surprised about how, you know, how many things can and will fail even in a successful venture. I think they're surprised that we can get away with screwing up as much stuff as we do, even now. It's not for their benefit. We'd rather not screw it up. But I think they're surprised how robust the system is that it can accept the kind of failure, even sloth at times, whatever it is that leads us down the road to crop failure or having a greenhouse squished by snow and shit like that.

Strengths, Successes and Struggles

Sabine and Milo have a very strong work ethic, plenty of confidence and tenacity and an uncanny willingness to experiment, innovate, and learn from others. They are also extremely adept at connecting with local community members, other farmers, and with food retailers. Milo and Sabine have always been savvy marketers. This is likely due in

part to their experience working in retail sales at the co-op. But it also has a lot to do with their outgoing and charismatic personalities. They seem to have an inherent knack for recognizing market needs, making connections, and developing trust relationships. Still, some of their marketing ventures have worked out better than others, and developing markets is a process even for those who are naturally adept. They began with a strong focus on community-supported agriculture (CSA). But over time they found that customer relations can be emotionally draining and a drag on their time. Answering phone calls, dealing with needy customers, remembering everyone's name, advertising, explaining the nature of CSA, packing individual boxes with a variety of crops, and making multiple deliveries can be taxing. So over time they have scaled down this aspect of their markets significantly to the point that they have a core group of committed customers who are loyal, low maintenance, and know what to expect.

Unlike some of the other farmers in this study there was no slow start, or gradual build. They dabbled for a little while on other farms, then they dove head first into farming on their own, for the reasons described in the previous section. There were certainly repercussions to this. A lot of their ideas and experiments did not turn out particularly well. But this has been an essential part of their learning process, and for the most part, their willingness to take risks and try new things has been an asset.

Their struggles come from, as they readily admit, their lack of interest in planning, budgeting, keeping records, and their failure to say "no" to people. They basically farm intuitively, and this is part of the joy for them. It can also be a drawback because it sometimes takes them a while to recognize what is making them money, and what is costing them. Their antipathy to planning and paperwork, their trusting nature,

and their commitment to helping out people in their local community has been a benefit in some ways (free manure, lots of volunteer work, local folks that know how to build and fix things helping them with equipment repair and building projects, etc.). But it has also been a drawback – most poignantly in the form of a spurious workers compensation lawsuit brought by a local kid who worked for them part time for a week or two, then claimed the work had wrecked his shoulder, and found a lawyer who helped him to sue.

They are extremely resourceful people, as evidenced by things like the search for old nails in the barn; using tree branches instead of lumber to build structures; figuring out how to work on equipment through observation; and convincing other people to help them out through volunteering, allowing them to plant hay on an unused piece of land they have, bartering, and other things. Still, they have suffered significant financial setbacks, at times from unfortunate events, and others to poor planning and unbridled enthusiasm. They have been overly ambitious at times, and this has cost them. Their failed experiment with aquaculture would be one example. But their ambition is also a reflection of their confidence that things will always work out, and on the whole it has probably been more of an asset than a liability.

Although labor is an issue for all farmers in this study, they have used their savvy and charisma to find a fairly stable labor situation. They hired an ex-migrant laborer (Raul) who had a hard time getting along at his then current job. He approached them about work, because he lived nearby, and despite an acute language barrier they agreed to hire him part time on the farm. After just a few weeks it became clear that Raul was not only a really hard worker, but also extremely skilled. He could drive a tractor, he understood plants, and was able to understand and follow instructions based on sign

language, demonstration, and the few Spanish words that Milo remembered from his high school classes.

> He'd often see stuff that I hadn't even noticed, like aphids on the squash plants or something. He'd find me in the field or somewhere and come up to me be like 'hay un problema' (there is a problem). The first few times I thought he'd must have rolled the tractor or broken his arm, or was sick of the work and wanted to leave or something. But he'd have me follow him back to where he was working and show me something I hadn't even noticed, like aphids attacking the summer squash, or a leaking irrigation line. He never did it for anything minor, it was always like some really astute observation of an actual problem. He had a really hard time understanding why I wouldn't spray chemicals at first, he probably still does. I think he finds it somewhat humorous in fact. But he just got things done, he learned really quickly, and he knew a lot to begin with. So it was a real bonus that I didn't constantly have to monitor him.

"He's been a huge asset" Milo says, "and so we've just kept giving him raises over the years to make sure he comes back. I mean, he get's a lot more money than anyone else I have working here, and a lot more than he would get picking blueberries, but on any given day he's worth more to us than a carload of people coming out here from [the nearest city]." One day after Raul came up and he and Milo had this sort of short discussion in Spanish with some impromptu sign language thrown in by Milo, I asked if their communication has gotten better over the years.

> I've definitely gotten better with my Spanish, but it's still kind of this 'pidgin farm Spanish'. We've just developed this kind of intuitive understanding. You know, it's not like we have mental telepathy or anything; it's much more mundane than that. He's just learned the farm and what we do here, and I've learned what he actually wants to know when he asks me something. I really don't have to explain that much to him anymore. I think most of our conversations are really politeness and social custom. There's a level of intuitive co-cognition that we've developed over time, and I think that's been more important than my perfunctory attempts to learn the language. I'm fairly certain he could run the farm on his own at this point, and I'm sure he knows that too. I often get the sense that he's just checking in with me to make me feel needed. But that's how social customs work, and he's out there to farm, not to

> explore cognition or power dynamics. I think he just feels a certain responsibility, and it works for us.

Raul's cousin now works on the farm too. They also have an active internship program, and in addition to hiring local people with skills, they sometimes hire young people from the nearest city.

They are both extremely intelligent and cultured people, and I spent more time on their farm than on any other. But there came a point where they began to view my visits as an opportunity to interact with a like-minded person, and just wanted to drink wine, cook food, and talk about philosophy and culture, rather than allow me to work with them on farm projects. They have both expressed the difficulty of finding social interactions in the small rural community that has allowed them to find a place where they could live out their farm dream.

Analysis - Motivation and Fulfillment

Milo and Sabine's motivations are a little bit different from one another. Both were attracted to farming because it offered an "alternative lifestyle", fit with their values, and seemed to offer challenge and adventure. But Milo seems to look at it mainly as a viable way to make a living that fits with his skill set and need for independence, while Sabine is more spiritual, and more community focused in her ideas about what it means and why it is important.

Both were attracted to the autonomy and independence that farm life offers, aspects of work satisfaction emphasized by both Hundley and Gasson. For Milo in particular, skill utilization, and task variety are incredibly important factors. "Open air, and a healthy way of life" is probably more of a factor for Sabine. This may be partially maternal, but it also seems to be an essential part of her character. These things are

important for Milo as well, but he does not seem to emphasize or strive for them to the same extent. Milo is very much motivated by the particular aspects of farm work: he is task oriented and seems to thrive on the variety of tasks as well as having purposeful activities in which to engage. He is also farm more motivated by, and worries less about the challenge, the gamble, and the chance to achieve than Sabine. He is just more of a risk taker, and really seems to thrive on this element of farm life.

With respect to the characteristics of self-actualization and self-transcendence as described by Maslow and Rogers, they seem to fit Milo and Sabine fairly closely, much like they do for Gilbert and Barb. Both have fairly realistic perceptions of themselves and others. They seem to know what people want and how to get along with them. Although at times Milo can get a little 'starry eyed', usually related to his enthusiasm about new projects, he tends to come back down to earth fairly quickly. They are both very creative. The creative element is something that Sabine specifically identified as one of her main motivations for wanting to farm, and Milo is always hatching new schemes for how to improve different aspects of the farm and engaging in clever and innovative projects. He is also very spontaneous. It is not that he does not think about things before he acts on them, but he dives into big projects with ease. They are both very interested in personal growth, though Milo in perhaps more of an intellectual sense, and Sabine in more of a spiritual and emotional sense. Milo is quite capable of being autonomous. Sabine is capable of it as well, but has less of a choice in this area because of her role on the farm as the main caregiver for the children.

Compassion is something Sabine exhibits as much as anyone I have ever met. It is evident in the way she cares for her children, for her animals, and the way that she treats

other people. They both have high levels of humility. They laugh at themselves easily and acknowledge their imperfections and mistakes without being defensive or making excuses. They certainly both have a need for human interaction and intimacy. They will always engage with people who come to visit the farm, have a number of strong and close friendships, and sometimes feel stifled by living in such a small rural town.

Informed decision-making is also something at which they both excel. They make many decisions spontaneously and based on intuition out of necessity, but they are always reflexive about and learn from those decisions. Large projects tend to be researched diligently before they are undertaken. Coping with difficult circumstances is almost a prerequisite for being a farmer, and is obviously something they are quite capable of, having chosen that life.

They are both spiritual, though in their own ways. Sabine is a yoga teacher, and is much more open to feeling the connections with place and spirit. Milo is not so tuned into that, but is fascinated by scientific conundrums and the mysteries of the universe, traits that could probably be described more as intellectual than spiritual, though he was a religion major in college and is fascinated by many aspects of spiritual life as practiced by others. They both have a deep respect for nature, though again they are connected to it in different ways – Milo more through an inquisitiveness and respect, and Sabine in a more connected and inspired way.

Whether or not they are indifferent to material comforts is a difficult question to answer. They certainly do not prioritize "things" unless they are useful in obtaining certain goals mostly related to food and farming. Their house is comfortable, but they are seldom 'lounging around' in it. They do love going out to dinner and experiencing good

food, love good wine, and good coffee. But they really cannot be described as materialistic in the traditional sense. At the same time they have both expressed some dissatisfaction about their relatively sequestered lives. Typically this is expressed as frustration about their lack of access to arts and culture, being both tied to the farm and far from any urban center.

Their skepticism of science and technology is also something that is a bit ambiguous. Sabine is a homeopath and very much interested in alternative medicine. A large part of what turned her off to medical school was the dogma of it, the insistence on absolutes. Milo is very interested in science, but approaches it with a fairly critical perspective. He seems to trust his own observations more than anything he reads in books, but is also strongly compelled to find an explanation for what he observes. Both of them are skeptical of bureaucratic and structured institutions, though they are not averse to using such institutions to their advantage. They have taken advantage of government farm programs far more often and more skillfully than any other small organic farmer I have met. Milo does some work for organic certification organizations, they are not averse to selling their products to large health food chains, and have worked with both university researchers and independent organizations in ways that many of the other farmers in this study would never even consider.

Analysis - Knowledge systems and Learning processes

Their process can certainly be described as "alternative", but there are elements of traditional science and knowledge incorporated into their belief systems as well. Milo's initiation into farming was on a very non-traditional "anarchist" farm in Oregon. Those formative experiences have certainly stuck with him. He studied plant and soil science on

his own, and learned a lot of traditional theory, but organic practice incorporates a number of theories, many of them contrasting. In addition, as the story describes, he does not believe that learning is something that can be accomplished from a book. His discussion (presented above) about soils in specific areas of his farm fields highlights the fact that he believes useful knowledge can only really be gained through personal observation, experimentation, and learning from "failure". "Learning from failure" entails reflexivity, and is essentially another way of describing "trial and error".

Sabine, who does most of the animal care on the farm, has learned primarily through trial and error as well, and very reflexively. She admits that she is "…always interpreting animals' behaviors very anthropomorphically". But she seems to have an intuitive knack when it comes to caring for them. Some of this is based on past experience. One of their first experiences with animals on the farm involved a duck (yes, another duck, not poor Walnut) that was going blind. she was able to use her knowledge of homeopathy to treat the duck, and eventually cure whatever was causing the problem with its eyes. Apparently I coined a term for her when I first heard this story based that they reminded me of a few years later: "the homeopathic avian ophthalmologist".

This is indicative of the ways she learned to be a successful animal farmer, through previous study, and intuitive care. She has of course read a lot about animal husbandry, and talked to a number of people who have experience with it. But as Milo pointed out: "nothing really takes the place of experience." While describing her system of fencing, housing and cohabitation that has accompanied incorporating animals into the farm system she says "You know, we're not really doing things by the book… we're doing things out of necessity." But part of their learning process has necessarily been

working with the resources they have, using their intuition, and dealing with things as they occur. Her story of delivering her first litter of goats is an absolutely incredible tale of dealing with problems because it had to happen. One of the kid goats got stuck because it was coming out the wrong way (the equivalent of a human breach birth), but she was able to reach in and get it turned around, and deliver the kid goat successfully.

A big reason for their success in the farming enterprise is related to their willingness just to dive in, to try new things, and to learn from their failures and their successes. The willingness to take risks, and to try things new and unfamiliar has paid off for them over their tenure. There was a time when the retired farmer who sold them their land told me he was not sure Sabine and Milo were going to make it. But the last time I talked to him about them his tone was totally different.

> I think they're over the hump. They've learned a lot and they are very determined and resourceful. They have some intangible qualities that have allowed them to come back from the brink over and over again, I suppose it's just part of who they are, part of their personalities. Or maybe it's just luck, I don't know; but I really don't think so. I think they decided they were going to do this, and have found their way to a place where it really seems to be working for them.

Story 3: Chase and Leila

Getting Started: Motivations and Background

Chase Molitor's journey into farming began with a Burger King Whopper that he ate one evening in the late 1970's. Chase had augmented this particular Whopper with a generous handful of psychedelic mushrooms. Later that night, at a gathering in the home of one his professors from Michigan State University, he was introduced to the concept of vegetarianism, and has not eaten a Whopper (or any other meat product) since.

Becoming more conscious about the food he was putting in his body was the first step toward producing his own in a way that fit his ecological and moral values.

He grew up in a big family, "lots of us kids" he says, and without a lot of money. "My dad worked hard at what he did and we all knew that. And when we worked, we worked hard, we always did. I work hard now, but I guess you know that. And all my neighbors didn't have that much money and they'd take us around to like migrant farms. You know, we'd pick along with the Mexicans, us kids - beans once in a while, and I remember picking blueberries. Topped onions, all types of stuff like that in the summer when I was young. We'd top onions for 12 cents a bushel. How hot is that out in the black mud you know. We'd pick and sweat and watch those dust tornadoes go by, black ones…"

I asked him once about where his love of growing things, of nature and the land came from. Having worked on farms myself as a kid, I was pretty sure it wasn't from topping onions all day in the heat. "I grew up on the edges of towns mostly, in big apartment complexes," he said. "It's interesting you know, how those things sprawl up on the edge. My mom had so many kids we'd go out in the woods to eat our lunch all summer. We would always just roam free for miles in the woods… I couldn't stand going back to school. It'd still be nice weather, and after being outside all summer taking my time reading books and exploring the woods and everything you'd be trapped indoors. Looking out, I just longed to get the heck out of there man… I learned, and got straight A's[19], but it was horrible."

[19] Chase was a "gifted" child. He claims that he never studied, but he got straight A's in school and ended up with a generous scholarship to attend Michigan State University. He did this for a couple of years, but ended up dropping out because, as he puts it: "I was too

Chase kind of roamed the town for some time after dropping out of college. Legends of his "partying" prowess, his ability to sleep in backyards barefoot on cold nights, and some of his other explorations and exploits (that I will not mention here) persist to this day. It seems he was much loved, though perceived as a kind of eccentric hippy, hobo genius. But that was a long time ago. Now, most people seem to think of him as just an eccentric hippy, farmer, though some (including myself) still believe he is a genius. He has always been somewhat enigmatic, and very independent. In a number of the interviews and conversations we had there are things he said that I did not understand at the time, but upon introspection or the re-reading of a transcript realized made perfect sense in context. For example, he does not separate politics from agriculture, food, or culture. In one interview he says:

> Kinda really life is politics. Even if you're just a farmer. Or a produce grower… for some reason I've always thought quite a bit about government and things even though I kind of don't even bother, I don't vote because I say if there's a vegetarian it might make a difference, but I don't know what their education is or something. I'm more like, I believe in that original thing more. Like the larger group should be passing up the changes and the people, and little tiny group at the top shouldn't be telling us the law and cramming it back down our throat and giving us like one representative that I don't even know from our vast area. I don't know the people in that community over there, why should I elect them, but there's no land based or tribal groups to pass on. If you can't grow there's no real democracy you know what I mean?... You're not having a group that's been able to dialogue with other groups of people who have similar interests. There is groups doing that, but their interests are to keep my groups from existing. The kind of group I'm theoretically trying to describe. Communities are not real communities, you know what I mean? And it's not like how it used to be. It's not really getting passed on: representation, as far as I can tell. Well I just, like I say again though, the majority don't understand vegetarian diet because it's the way we were raised here in this country, and our parents and everything, and that makes

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much into adventure… When I applied myself to my studies real well, I could do that. And when I applied myself to other things like partying, I did that well too. [So eventually] I said 'well I'd rather just do other things and cleared out'."

> it real hard for me, The person has, well I can't elect somebody that's never even considered the issues I consider important, it's not even on the radar screen. Feel like you have a voice in government? They've never ever heard me say anything.

Chase began going to organic farming conferences in the state before he was even planning to farm himself. "Back in the early 80's it seems like there was a, we were hippies so we were attracted to like organic farming conferences…" he says, "It turns out the person who organized them, I'm living now a mile from his farm, I didn't know that when I got this place but that my neighbors were long-term organic produce growers…" A number of the presenters at these conferences were really inspirational to him, including Robert Rodale[20], and Kent Whealy[21].

At a Thanksgiving pre-Rainbow Gathering[22] Council in Michigan a couple of years later, he met an organic farmer named Eli Miller. Eli grew carrots, beets, and onions, and Chase made plans with him to start growing produce on his farm the following year. He had limited experience with farming but was growing "a big garden"

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[20] Robert Rodale was the son of J.I. Rodale, who is largely credited with initiating the organic farming movement in the U.S. Robert basically took over for his father as the leading advocate for organic farming in the country. Until his tragic death in 1991, Robert worked to maintain the Rodale Institute, a non-profit organic advocacy organization and research farm first established in 1947, and was Board Chair and CEO of Rodale press, publisher of the magazines *Organic Gardening, New Farm, and Prevention.*

[21] Kent Whealy is an organic farming advocate and activist, and the co-founder of Seed Savers Exchange, an organization and farm that works to promote organic agriculture and preserve heirloom plant varieties.

[22] Rainbow Gatherings are leaderless intentional communal get-togethers. They began in the early 1970's as an extension of the "hippie" movement. People get together for a week or so, usually on National Forrest land, to explore an alternative ways of living based on the ideas of personal freedom, self-expression, and community building. Rainbow gatherings emphasize the use of barter instead of money, harmonious living, peace, and love. They feature the spontaneous communal creation of art, music, and dance, often enhanced by altered states of consciousness.

at the house where the Council was held, and Eli could tell he was serious about it. So they made plans for Chase to come out to his farm the next summer. He grew "odds and ends" out on Eli's farm, mostly for his own consumption, but he did sell some produce to a local food co-op. This "was just something to do for the summer" he says, and though he had started thinking about farming as a lifestyle at this point, it was not until a couple of years later that he became more serious about it.

In 1987, Chase and his former wife bought a 33-acre parcel of land at auction for "a few thousand dollars". This was during the farm crisis in America, and a lot of mid-sized farmers were getting out of the business, either because they did not see a future in it, or, more often because they could not make their payments and were foreclosed on. The section they bought was part of a 300+ acre farm that was likely a victim of the latter. Chase is a very abstract thinker, and he seldom answers a question in a direct way. But it seems that the choice to buy this farm plot had more to do with an impetus to get away from city life and to find a place where he could be more at peace, and more in touch with the land. He wanted to live in a way that was consistent with his values, which include a deep respect for nature, an emphasis on personal health, and a critical view of modern economic systems. He had been living life somewhat unintentionally and unconventionally up until then, and although moving out to a little place in the country was unconventional (especially in the 1980's) it was not unintentional.

Part of the attraction of this plot, as he describes it, was that "it had a well on the end of it, and there was this trailer on it… a place to move right into, so that's what I was looking for at the time". The decision and the opportunity to buy a farm had something to do with being in the right place at the right time and looking for a lifestyle that did not

interest many other people at the end of the Reagan era; and a lot to do with his strong desire to become more connected with the earth.

Chase ended up selling a parcel of this farm to settle his divorce agreement, and then bought a few other adjacent acres so that he "…didn't have to leave and go work somewhere else". The current farm is about 20 acres, though there is a fair amount of it that is swamp and woods. Leila moved out to the farm in the mid 1990's. The first year she "gardened"[23] there, as far as they can recall, was in 1996. She had done "a little bit" of gardening before that but "was definitely attracted to the work and the lifestyle and the and the whole idea of it all". Chase jokes that "she fell in love with the garden and she got stuck with me." They have lived on the farm together ever since and have two daughters together, the first of whom was born within a year or two of her moving out to the farm.

A professor of mine told me about visiting Chase on the farm one evening after his divorce, and before he met Leila. She describes finding him in an old mobile home with a door that was dangling from one hinge. He had a mop of long uncombed hair, a crooked Grizzly Adams beard, and was missing a couple of front teeth. He was wearing a coat (apparently he did not have heat) and playing a guitar by candlelight. She remembers thinking "wow, this guy is really on the edge. I wonder if he's going to make it."

The farm is as ecologically diverse as any I have ever been on. Chase and Leila do not raise animals, but there are lots of wild ones around[24]. The cropped areas

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[23] Chase and Leila refer to each of their plots within the larger farm as "gardens", though they refer to themselves as "farmers".

[24] Again, based on their vegetarianism, which includes a moral opposition to animal production. They even eschew the use of bone meal and blood meal. The inclusion of

("gardens") are almost entirely bordered by woods and swamp. These gardens are interspersed between a variety of fruit trees and evergreens that Chase planted over the years, and many are surrounded by a thick tangle of grasses, berry bushes, and whatever else happens to have established itself there. But this is not the result of sloth. It is intricately related to Chase and Leila's belief in ecology, their respect for "nature", and the idea that diversity is an essential part of farm health.

Leila claims she has never seen Chase use a mower in all the time she's been on the farm. She says that when she first came out there "…it was this seemingly random labyrinth of deer trails and human trails weaving through weeds and brush. But you'd be walking down one of these trails, and all of a sudden it would open up into this beautiful perfectly manicured garden patch. It was totally crazy, but really kind of magical." Some of the farm is still a bit like this, though the paths and the grassy driving lanes from which they emerge are mowed occasionally (by Leila presumably).

Farm Development: Production, Marketing, and Learning

In his first year on the farm, Chase "started to grow produce. But I didn't really sell anything to people that first year, maybe a couple of years" he says. "Can't recall exactly when I did start selling it from this particular farm…" he says. What he grew in the first year or two was simply for subsistence, and took care of his basic needs. But it was not a moral imperative or laziness that drove him not to sell his produce.

> I didn't even know how to market it. I just started growing it. I planted these big packs of spinach and I'd have, you know, manures we dug out of places, so I had these big lettuce rows and spinach rows, and this huge crop of stuff. I didn't know how to get rid of it. Most of it got tilled under. That was the biggest lettuce you ever seen man.

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these things in organic standards is at least part of the reason they have chosen not to be certified.

Sometime within those first couple of years, he began selling a little bit to a local food co-op (not the same one he had sold to while working on Eli's farm several years before). He says that the co-op manager would actually come out to the farm and help pick lettuce and spinach to sell. Gradually he started selling more consistently to food co-ops, to friends, and to friends of friends. He was able to get away with this because he lived so "low to the ground". Growing most of his own food, not having any equipment, and apparently not having light or "utility-based" heat, he was basically limited to the cost of seed. As his growing skills improved, he also began breeding and saving his own seed. When your cost of living and your farm input costs are almost non-existent, selling a couple thousand dollars worth of produce a year is perfectly sufficient to get you through if you are willing to exist on a very basic subsistence level, which Chase preferred to life in the city.

But then Leila came to the farm. And not only did she see its potential, she got pregnant. So she worked to get them a booth at a local farmers market that was quickly growing, and started producing high value crops[25] in her own "gardens". Eccentricities and independence aside, once Chase bought into this new paradigm, he quickly became adept at taking advantage of it. The intelligence that allowed him to get straight A's in school without even trying is not something that one simply loses through living as a hermit for a time. In fact, he spent much of this time developing his unique, but effective growing techniques, observing the interactions between vegetable plants and their environment, and, learning about the particularities of every acre of his farm.

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[25] Leila's flower bouquets are impeccable, and have not only become an important source of income, but also serve to draw people to their farmers market booth.

Not only had Chase become adept at growing high quality produce, it did not take him many Saturdays at the market to recognize that the things that sold best, and at the largest profit margin were the things that no one else had. Because he had always loved to experiment with different plants and different varieties of individual plants, finding his niche and setting up a profitable market table came pretty naturally to him. When talking about what he chooses to produce, Chase says,

> …it's geared toward whether they're going to buy it at the market. Because I'm not really taking it to other places, you know to try and wholesale. And so, if you go to market, certain crops people have a lot of. People that are just buying and reselling they're maybe focusing a lot on fruit and standard vegetables so they're not probably even able to find a lot of the odds and ends like chard and things like that, and if they do it's older and it's just not going to hold up to much. So we've got a lot of odds and ends, greens out there, I mean you know it, arugula, a little bit of this a little of that, we might only have 5 or 10 bunches of something every Saturday though, if we've got 5 or 10 bunches eventually it's a couple hundred bucks, you know. Sell 30, 40, 50 dollars worth of parsley every Saturday, you know, at least it's consistent, you know what I mean? So we got a little bit of a lot of things, you know. And some of them I'm not trying to grow a whole mess of, say, heirloom musk melons because my own experience is that they're much more finicky, the soil has to be just right and the water has to be just right, and still they're more disease prone whereas the hybrids tend to be easier care in a sense. And you got to have stuff out there all season long, like early greens and stuff you know, so it's definitely focused toward a market that way. If I had enough time, didn't have to think about the markets and needs in some ways of other people than us, I might focus more on heirlooms just because a lot of them taste great, they look great. I enjoy doing that you know growing them. But I wouldn't necessarily be able to market as many of them. We do take risks though.

"The experience of the years" Leila adds, "…we know what grows well, we know what people like, and we know that what our niche is.

Chase and Leila farm separate areas and separate crops that compliment one another at market. She does primarily flowers and herbs, as well as some specialty vegetables. He does transplants, vegetables, and fruit. There are a wide variety of

different fruits grown on the farm including blueberries, mulberries, raspberries, plums, grapes, and a wide variety of heirloom apples and pears. Many of these never actually make it to market, being consumed by the family instead. This is a system that they have worked out over time based on communication, negotiation, and trial and error, and it is constantly evolving. Chase told me once that separate gardens help them "stay off each other's backs" because they have "different ways of doing things". But they do work on some things together, and help each other out when the need arises.

There are a few things that they both grow as well, and sometimes there is a healthy competition between them related to this. Leila describes both her learning process and their small competitions in this way:

> I started out growing just a few flowers and a lot of wild flowers and flowers from seed samplers. And then I started to grow some of the bigger perennials. Then I've always been trying, I mean Chase has grown everything, whereas I don't have the experience. I mean I have a lot of experience, but I don't have experience with a lot of the different types of vegetables. So when I grow it and he's telling me it's not a very good strain, or you know, that's just not worth it, it kind of feels like, well let me figure it out for myself. And sometimes he's actually - the conditions are so different [on different parts of the farm] that the vegetables actually, he's like 'wow'. I remember I grew that cauliflower and he had never grown cauliflower that good (both laugh).

Like the farmers in the other stories, and to an extent even more than most, Chase and Leila have both been "trial and error" learners. Neither of them has ever taken a class, done an internship, or worked for another grower[26]. Leila's learning process has certainly been helped by the Chase's knowledge of production practices. She credit's

[26] Chases' harvest experiences as a kid certainly didn't teach him much about growing, and his experience growing at Eli's may have helped him learn some things about fertility and other things, but it wasn't a mentorship or a job. They were growing mostly different crops on separate parts of Eli's farm.

Chase with much of her learning, but she is also very independent and has done a lot of reading and experimentation on her own.

Leila is relatively organized, but Chase farms almost entirely by feel - meaning that things are not necessarily planned out anywhere but in his head. This is astounding considering the diversity of crops that he grows, many of them from seed. His ability to do this successfully is almost certainly based on a combination of his unusual intelligence, and his 25 years of experience. Diversity and experimentation have also been important in helping them to learn and to succeed. Chase grows 15 different kinds of potatoes in their small plots. They grow at least 10 different kinds of garlic that Chase has been experimenting with, saving, and replanting for years. They have tried a huge variety of tomatoes, and over the years Chase has slowly been planting heirloom fruit trees. They must have dozens of different kinds of apples and pears, as well as peaches, plumbs, cherries and more.

Both of them see the farm, and their process of developing it as a work in progress. But they also limit the level of control they apply to it. Chase has a small rototiller that he bought a couple of years ago. He uses it to prepare a few of the smaller gardens, and occasionally to weed between rows. He also pays a neighbor an hourly rate to till some of the larger gardens the larger gardens in the spring. Leila has a mower that she uses when needed just on the paths and in the driving lanes. They also have at least one refrigerator to store some of the more perishable things in before they take them to market if they harvest them early. Their "irrigation" consists of stretching hose(s) from their single well, and hooking them up to a conventional home garden sprinkler. When it is dry, this is a stop-gap measure at best. They hand weed within their gardens, and they

have manure from a couple of local farms delivered and dumped in a pile. Then they move it to where they need it with hand-carts.

Basically, they are making it by living a very simple life. Many people would find their lifestyle difficult and uncomfortable. But for Chase and Leila, being autonomous, being in close touch with nature, being healthy, and providing for their community is much more important than other kinds of affluence. On their small plot they manage to do well enough financially to raise their daughters in relative comfort and provide them with things like music and dance lessons. In the time that I worked with them they took trips to both Arizona and Costa Rica. Certainly, they work hard, but only for part of the year. Neither of them has, to my knowledge worked anywhere but on the farm in the entire time they have been there.

Strengths, Successes and Struggles

By providing most of their own food, not paying rent or mortgage, and running almost no equipment, Chase and Leila are able to keep their overhead costs extremely low. Their high value products are sold at two farmers markets and a food co-op within 30 miles of their farm, so transportation costs are low. Local people and the co-op know their practices from talking to them at the markets or visiting their farm. They have built a reputation for high value products farmed using practices that at one time would have been called organic, but no longer can be, now that there is a national certification system that they choose not to take part in. As a result, they get premium prices for their produce. They can charge $5 for a quart of new potatoes, $4 for a bag of spinach or salad mix, and sell specialty crops like flower bouquets, garlic scapes, and heirloom apples for prices

few people would ever consider paying at a supermarket. But many of their products are things that are not available at a supermarket.

They have certainly benefited from the growing demand for high quality local produce, as well as specialty crops. They tell one rather funny story about a variety of beets that they had been growing for years that happened to be popularized one summer by being featured on a couple of popular cooking shows, and/or in some gourmet food magazine. All of a sudden they had people lining up to buy their beets – a crop that is relatively easy and cheap to grow, for pretty much whatever they decided to charge for them. Getting top dollar for the quality products they produce helps them to make a living on their very small production area. Always having a wide variety of things available at farmers markets allows them to attract customers to their booth. Producing unusual crops has given them a market niche. Growing a diversity of crops has allowed them to avoid catastrophic failure, since years that are bad for some things, are often good for others.

In short, their own values, their lifestyle, and their production choices have been important in helping them to survive economically.

Although it has helped them to avoid debt and keep their overhead costs low, some of their biggest struggles are related to their reluctance to mechanize. In my discussions with them, both drought and labor tend to be their primary concerns.

Drought affects them significantly because of their lack of irrigation. The lower part of their farm, near the house and well is easily watered. But during dry spells it is a big issue in some of their larger plots, which are located further from the well. I have seen them run 400-500 yards of hose up to these plots just to put a garden sprinkler on a small section of this land. With this system it is difficult to get the kind of deep watering

that most crops really need even in the tiny area covered by an oscillating sprinkler. They have been discussing digging a new well up in this section for as long as I have known them, but this is a costly endeavor at their scale. One of their strengths is their ability to conserve their resources by not making large investments like this.

The other big issue they discuss regularly is the difficulty they have in finding reliable labor. This is partly due to their isolation and their need for privacy. They do not have housing for farm workers or interns, and though people have stayed on their land in tents, they have to share their bathroom and small kitchen, which intrudes on the privacy and autonomy that is part of their reason for choosing the life they lead. They have also experimented a number of times with local young people, but have been consistently dissatisfied with their work ethic. Chase says that as soon as he sets kids to work and leaves to do something else they start slacking off. "I've watched them," he says, "and there's usually a couple of kids who just have no work ethic, who start goofing off and it infects the others. Before you know it you're paying $50/ hour or whatever for a bunch of kids to have a dirt clod fight; trampling your crop, and destroying your soil structure in the process."

He has had some success with migrants and former migrant Hispanic laborers, but the farm is not well set up to provide consistent work for a family. Again, the issue of housing and basic facilities impedes their ability to attract individuals from this demographic.

The final issue that they have talked about their struggle with is pests. According to Chase, diseases and insects are something they can handle through rotations, and because the farm is so ecologically diverse. Occasionally something will get hit, but this

is not a particularly big problem, and they do not use any kind of sprays for insects or diseases. They will sometimes use groundcover, but usually rely on timing and crop rotations to deter insects. The pests they have they the most trouble with are the big ones: deer, groundhogs, rabbits, etc.

All the farmers in this study have a problem with larger animals to some extent, but it is particularly acute for Leila and Chase for several reasons. First, none of the other farmers would hesitate to kill any of these animals if they were doing damage to their crops. Gilbert, for instance, says "it's a real shame to have to waste the price of a bullet on a groundhog." Milo and Sabine keep dogs that patrol the farm and dissuade a lot of these animals. But for Chase and Leila, the values related to their respect for nature and their vegetarianism preclude killing them. They are also surrounded by swamp and woods and are far from any urban area. Though there are other farms around, they are all crop farms (corn and soybeans for the most part), nothing as tasty to a deer as the greens and other things they grow. Finally, their production area is so much smaller than that of the other farmers, even a small amount of damage represents a much larger portion of their total crop. They have some fencing, which acts more as a deterrent than a control for a determined animal. They use traps for the smaller animals, and release them a few miles away. This is technically illegal, but they have very little sympathy for the large-scale GMO farmers that surround them. For the most part they rely on being out in their fields a lot, and use the "hoot and holler" method to scare off the deer. Otherwise they just accept the damage as part of their relationship with nature, and* the price they pay for altering the system in a way that attracts these animals.

In summary, the biggest problems they tend to have are the direct result of drought, weed pressure, and large animals. Without a reliable irrigation system, it is impossible to keep their produce sufficiently watered when there is not consistent rainfall. Some years this is not an issue, but when it is, it can make things really tough. Again, their crop diversity, seasonality, and their low overhead helps to ameliorate the devastation that drought can cause on large monoculture farms. But with their land limitations and limited gross income, it can be problematic. Without a reliable source of labor, keeping weeds at bay is nearly impossible as well. I have known Chase to till gardens under simply because they became so weedy that the crop plants did not have a chance. But this is an area where decisions have to be made: what is the most important crop, or which one is under the most pressure Nor can they fully control the hunger and determination of the wildlife that surrounds them, but this is something they are more willing to accept based on their values.

Analysis - Motivations and Fulfillment

Leila and Chase appear to value their autonomy and independence as much as any of the other farmers in this study, and this was undoubtedly a strong motivation for both of them to choose a farming lifestyle. However, they don't ever seem to focus on this issue in interviews and discussions to the extent that the other farmers do. As the previous analyses have emphasized, autonomy and independence is closely related to satisfaction with work according to both Hundley and Gasson. Their lack of emphasis on this element of their lives may be related to the fact that they have had more of it, and for much longer than any of the other farmers whose stories are told here. They are the only ones who don't have a mortgage payment to make every month; they've spent a much longer

period of time without reliance on off-farm income; and they are less dependent on outside labor, so they are much more used to being in control of who is on their land when, and what is done there.

It is important to note that they do host several gatherings each year on their farm (on May Day, Summer Solstice, and to celebrate "fall harvest"). These gatherings include pagan rituals, community activities like tye-dying clothes, music, potluck meals, and farm walks. They are typically lively, family-centered events, though they have also hosted sweat lodge ceremonies and other more spiritually centered adult activities.

Independence *is* clearly emphasized when they talk about working with one another. The fact that they each have their own gardens on the farm, their own way of doing things, and that Leila highlights the fact that she insists on, and has been successful in growing crops that Chase has not been successful with is an articulation of independence within the farm family structure. This is another form of creative or artistic expression, manifested through the practice of farming.

The second issue articulated as a reason for job satisfaction among small farmers by Gasson – "open air and an healthy way of life" is however clearly articulated as a strong motivating factor for both Chase and Leila. The emphasis on vegetarianism, on fresh healthy food, and Chase's frustration, even as a kid with being "locked up in school" are all expressions of this. Other sections of the interviews with these farmers not presented here articulate this even more clearly. Their reverence for nature, and their love of the outdoors is something that they have both spoken to me about at length.

"Skill utilization", "task autonomy", "task variety" and "flexibility" which O'Brien and Hundley both identified as essential factors in work satisfaction are not

elements that Leila and Chase are particularly reflexive or articulate about either. But it is something that one cannot help but observe when spending time with them. Their movement about the farm, and between the farm and the household is something they do with ease and purpose. It is hard to imagine them being satisfied with any kind of job that did not allow this kind of movement, autonomy, or flexibility. Being able to interact with their children, whom they home school during the day, deciding what needs to be done and choosing what they want to do in terms of their farm work are essential to their enjoyment of labor. I simply cannot envision either of them being good employees in a hierarchical system with a specific division of labor. They both really do seem to enjoy their daily life and work on the farm.

The related issue of their enjoyment of tasks and purposeful activity is again something that is clear from observing their daily routines. Chase rarely talks about it which again, is probably a result of the fact that he has been doing it so long, has never really done anything else, and cannot imagine doing anything else. But Leila does express this factor, usually in a way that is very spiritual and reflects her values as much as her personal enjoyment of tasks. She says, for example,

> …when you're experiencing that plant energy, you know I'm experiencing different energy when I'm in the tomatoes or when I'm in the lettuce. You know, I mean its all each its own separate experience, and then of course you know what it's like to garden with your perennial plants. Just so much wonderful feeling when you're tending all these different things that kind of go together.

In terms of the self-actualization characteristics identified by Maslow and Rogers, they embody most of them in quite evident ways. Having realistic perceptions of self and others is of course dependent on one's view of reality, and theirs is certainly unique. But they seem to understand their limitations and their abilities. Although they have strong

critiques of conventional farming, and of society in general, they do not tend to blame others for ascribing to it.

Creativity and spontaneity are characteristics they embody in many ways. Chase says: “we don’t make big plans.” They found a way to farm and market on a small acreage with almost no equipment and make a living doing it. This requires creativity in numerous ways. It is also apparent in Chase’s experiments with breeding and seed saving. Their problem-centered approach to life is evidenced through this as well. Farming in the way they do requires problem solving almost constantly, because there is always some kind of “fire to put out”.

Both Chase and Leila are totally capable of being autonomous. In fact they say that there are days they both spend working from dusk until dawn and hardly ever see one another. Chase says “I like the quiet and nature too, there’s an interaction with nature that might not be there if there was too much social interaction.” Personal growth is extremely important to both of them, and this is something they express freely. Compassion, humility, and respect are elements of their personalities and value systems that are made clear in almost every interaction they have, and in the answer to almost every question I have ever asked them. The need for human interaction and intimacy is displayed by their desire to have another family living on the farm, as well as the several potluck gatherings they have each year for friends and family.

They are both very spiritual as the quote regarding the energy of plants from Leila above indicates. Chase also spoke to me about time he spent at an Ashram, as well as the “power places” they visited on their trip to Arizona. Indifference to material comforts is implied by the description my professor gave of Chase’s living situation when she first

visited him. They still live in a trailer, although it has been modified somewhat to make it more habitable. Leila is much more concerned about spiritual and personal development than she is about "things." Chase explicitly told me in one interview "My drive in life isn't necessarily to acquire more money..." They are certainly skeptical of science and technology. The fact that they farm with little equipment, eschew genetically modified crops, and have a preference for heirloom varieties over hybrids is indicative of this.

Finally, I have never met anyone who is as detached from societal and cultural influences, or as antipathetic to highly structured, inflexible, or bureaucratic institutions as Chase and Leila are.

Analysis - Knowledge systems and Learning processes

Their learning processes, as I mentioned earlier, are far outside the mainstream. Chase developed his farming system almost entirely on his own, and it is like nothing I have ever seen before. Still, it works. They are able to grow healthy beautiful crops, proving that they can make a living on a very small acreage. Their farming system is not only unique, it is a reflection of their personalities, and of many years of experimentation. It is also based very much on their value systems, rather than any proscribed ideas about efficiency or "best practices". They farm by intuition, and they learned to do it almost entirely on their own through intuition and trial and error.

Story 4: Billy and Ren

Getting Started: Motivations and Background

Billy and Ren both grew up as city kids. But their interest in farming developed at an early age nonetheless. Billy's father was a cop in Detroit, and after some of the worst

urban riots in the history of the country, the police force increased it's "fleet" of horses which are valuable both for moving crowds, and being able to see above them. Billy spent a lot of time with the horses. He "loved the sounds and the smells" and spent a lot of time on a horse farm when he was young, cleaning stalls and doing whatever else was required. Ren's grandmother had a double lot next door to her parents' house, and they had "massive gardens" that she helped tend in the summertime. They were not well off, so they would get loads of manure dumped in their driveway to spread on the gardens for fertilizer.

The experience on the horse farm was seminal for Billy. "I'd been thinking about [farming] for 35 years" before it actually happened he says, "I always wanted to be a farmer." He went out to California to finish high school and "got a taste" of industrial scale farming, which he describes as "a bad idea" that has been encouraged for too long.

Finding their farm was a long involved process. As Ren explains, "we knew what kind of money we had, and we looked at ton of places." Billy claims that "they probably looked at over 100 farms before they found theirs. They knew they did not want less than 10 acres, but they were not planning to buy 80, which is eventually what happened.

They both had a number of service jobs which helped them to get the money together to buy a farm, provided them with what turned out to be an important level of business acumen, and helped them develop a work ethic that has served them well.

Billy worked in the restaurant and bar business for years. His original goal was "to have my own upscale bar and grill… and then have a place in the country that I could go to and grow some of the food for the restaurant, and relax…" At one point he did own his own bar and grill. But one day his business partner changed the locks on the place,

and absconded to Jamaica, though I never was able to get the whole story about this incident. “Of course I made more money as a bartender… in the 80’s than I do right now, but I’d rather be outside.”

At one point I asked him how he learned the basics, if he read up on farming before getting started. “I read Martha Stewart,” he answered. “Martha Stewart’s one of my heroes man. Honest to god”. While he was not joking about this he did later admit to me that he had done a lot of other reading too. He bought books from Acres[27] and subscribed to the magazine. As other farmers in this study pointed out however, books can be helpful, but are no substitutes for experience. One day, during a passionate diatribe that Billy proceeded to deliver about how the professors at [Local University] should be reading Gary Zimmer and Niel Kinsey (both of whom are associated with Acres and present information on sustainable agriculture systems, ecology, soils, and plant nutrition) instead of sitting in laboratories, Ren was able to interject a sentiment that should by now be familiar: “I think it was also, you know to be honest, a lot of trial and error.”

Billy’s vision for the farm was to practice community supported agriculture (CSA). But the ironic thing about this is that he had never heard of CSA. “I thought I invented it,” he says. “I mean really I thought seriously, ‘this is the greatest idea I’ve ever had’.” According to Ren, “Billy’s idea was to get a farm and grow food for people. We were going to charge them a flat fee, and we were going to deliver a little bit of it each week.”

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[27] Since 1970 Acres USA has been publishing a monthly sustainable agriculture magazine focused on practical solutions to problems, tips, ideas, innovations, and scientific research. They also have an extensive catalog of books covering many aspects of alternative agriculture issues.

Farm Development: Production, Marketing, and Learning

They finally bought their farm in 1994, in a rural community north of the city. Billy and Ren had no equipment, and little farming experience. In their first year they spent countless hours "digging a couple of large plots by hand" with the only tool they had: "a round pointed shovel". It was less than an acre, but that is a lot of digging. The next spring they started growing crops, and found 13 families to invest in their marketing idea (CSA). The original families were mostly acquaintances, and people they had met through work. "Where I come from," Billy says, "most of my friends, they don't eat vegetables man. I mean honestly man. They think of vegetables as the stuff that actual food eats."

At the time they bought their farm Billy was running an "environmental" carpet cleaning business and Ren was working as an airline stewardess. Billy shrunk his business over the next couple of years as the customer base grew, until he was farming full time, but Ren stayed at her job because it gave them necessary income for growing the farm, taking care of their family (they have three daughters), and provided them with health insurance.

As word spread about what they doing, and as they (mostly Ren) worked on promoting and advertising their CSA program it grew steadily. In their second year, they produced food for close to 50 families. The year after that the number was "in the 70's", the following year it was around 120, then in 1998 it jumped to 230. By 2006 they had over 750 CSA members. They grew their farm far more quickly than the growers in the other case studies except perhaps for Milo and Sabine. But Billy and Ren had more land and as they found more customers they needed to grow more food. At their scale,

equipment really became necessary. Billy justified this in one interview by saying "I mean, you just don't plant 700 pounds of potatoes and go out there with a pitchfork." This meant more debt, and larger payments every month. It was cyclical in many ways. But it was not just the fact that they had more tillable land and more debt, it was also a result of their intensity and ambition.

During one interview, Billy told me, "you're either a farmer or a hobby farmer, and I'm not gonna' do that 'I'm going to do my own garden and to hell with everybody', okay? I'm not. I'm just not. You can't do two things like this well. I couldn't have kept my carpet cleaning business and tried to farm vegetables. You can't do both of 'em." Then he became less adamant and said,

> As far as this family goes, and all this money bullshit, I would probably been better off staying as a carpet cleaner because I was, I was pretty good at that too[28]. You know labor intensive, doesn't require massive thought, but I was conscientious about it, same way I am with growing food. Except that I'm more involved with [growing food] because I'm looking at nutrient densities, and I'm looking at stuff that's good for you, not just producing stuff, but producing quality food.

Their ambitious growth relied on mechanization and infrastructure development, and this development required accruing debt, lots of it. On one of my first visits to the farm as Billy and I were walking out toward the fields, he put his arm around me, pointed at their seedling greenhouse and said "you see that? That used to be my Harley Davidson 1200 Softail. God I loved that bike." Their debt led to many sacrifices beyond selling beloved motorcycles. In 2007 they told me that their family had taken only one vacation in the 13 years they had owned the farm, an overnight trip to an amusement park that was a 5 hours away by car.

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[28] Billy says he was making between $1500 and $2000 a week with the carpet business.

Ren kept her airline job for a time for income and health insurance. But it took her away from her family a lot, and in the late 90's when the CSA numbers got big enough, they had to make a choice. Either they needed to hire someone to manage it (Billy has always focused on the production end of the farm, and can, by his own admission, be a bit acerbic at times), or have Ren quit her job and come to work on the farm full time.

The tipping point came when a major Detroit newspaper ran a feature story on them, and their phone "started ringing off the hook". So as Ren explains it, " …we just decided it was me continuing to work and him [Billy] hiring someone else and paying them or me just coming to work for the farm, and I decided to do that."

When first starting out, Billy and Ren were extremely frustrated by the reluctance of other organic farmers to share information with them. Ren remembers, "just because I didn't know the right lingo at the time they could tell I was a beginner just trying to put out the feelers looking for some of that you know companion …I don't know I guess I started out with the notion that people would be willing to talk to me…" But most organic farmers were not willing to talk to them, so they basically had to learn everything on their own.

The mechanization and infrastructure they developed was innovative and impressive. I spent one afternoon on the farm helping pack CSA boxes for delivery to various locations. The process was complex, but extremely well orchestrated. One person stood at the end of a conveyer belt with a clipboard marking boxes for each delivery site, starting with the last, and calling out what should go in them. Because not all of their produce items were available in sufficient quantities each week for every customer to get them, different sites would receive them at different times. So on this day

some people were getting raspberries, while others would get them the following week (for instance). Some items went in every box (2 summer squash, one bunch of carrots, one bunch of kale, one head of romaine lettuce, one eggplant, etc.) Three or four of us stood on either side of the belt with bins of specific produce items on either side of us. The heavier items were first, the more delicate items last. The clipboard guy would call out the number of boxes - "FIFTEEN", then the specific items (that were not going in every box) for that delivery – "MELON, ARUGULA, BERRIES…" Then he loaded the boxes on the belt and we each put our items in. Ren stood at the other end of the belt double checking the number of boxes and handing them up to the delivery guy on the large refrigerated truck who would stack them front to back (the first deliveries going in last). The day I worked with them we did over 300 boxes for over 20 drop-off sites.

When I asked Ren how they figured out this process she said "we've just had to become more efficient as we've scaled up, and this is what makes the most sense to us." There may be other large CSA's that use similar systems, but Billy and Ren figured this out on their own. They did not have training or templates to look at when making most of their production decisions. Billy is an avid reader, and combs the alternative farm journals and catalogs for new ideas, production methods, and equipment he thinks will be useful. But they do not attend farmer conferences or "field days", they had little contact with extension agents, university specialists or most of their farmer neighbors (whom they tend to speak of with open distain). They largely developed their production and marketing systems through careful planning, with a liberal dash of trial and error.

Part of the original idea of CSA was that consumers would "share the risk" with the farmers. That is, if it was a dry year, or there was blight on the tomatoes, your box

suffered along with the farm. But with the scale at which Billy and Ren were producing by the time I began working with them, it was difficult to develop personal connections with customers. Not only that, but the vast majority of them were suburban dwellers, with little understanding of how a farm works. In essence, it had become just an alternative marketing scheme, rather than something that involved genuine "community support".

For this reason, any season that was sub-optimal would result in significant turnover. One year they has an extraordinarily wet spring which drowned many of their plantings and set them back significantly in terms of getting crops into the ground. As a result, their CSA boxes were poor, and they missed several weeks entirely. Billy and Ren decided they needed to tile their fields (put in drainage) in order to avoid a repeat of that year's poor crop. But the expense of this procedure was compounded by many of their CSA members deciding not to renew their subscriptions, since they did not feel like they had gotten adequate value for their investment the year before. Of course, this was another investment that led to more debt.

Strengths, Successes and Struggles

Both Ren and Billy worked in service industries for many years before they started their farm, and Billy had owned a couple of businesses. This is clearly an advantage in several ways. They learned how to advertise and how to sell themselves. Their real world experience dealing with customers, creditors, employees, and others also served as an asset. Knowing how to read people and how to deal with them – when to be conciliatory, when to be firm, and how to stand up for themselves while providing service in a manner that could sometimes convince even disgruntled customers to stick with them. They know the kinds of things that most customers expect. As Billy puts it,

> Understanding how to deal with farm customers was the …same reason I went into carpet cleaning when I got into that, 'cause I listened to people l listened to everybody complain about - they didn't move the furniture, they didn't show up on time. I'm prompt baby, I'm going to clean the rugs [or grow the food] just like they're my own and people realize that." Both bartenders and flight attendants are in the business of making their customers feel welcome, cared about, and taken care of, but are also in positions of power and need to be authoritative when someone crosses "the line".

Both Billy and Ren are very sociable and can be extremely charming and funny, but they do not take flack from anyone. This may be attributed to their upbringing in a tough city and their, what might be called "street smarts". It usually appears to work to their advantage. They have "thick skin", which is valuable when working in a business as unpredictable as farming, and when working with as many customers as they do. They know how to handle themselves, and are not going to get pushed around. But at times, it seems that this quality can also come off as somewhat aggressive, arrogant, or pushy. None of these things are actually true of either of them in my experience, but they can project it at times. I suspect it is a factor in the previously mentioned difficulty they had connecting with other organic farmers, many of whom were "country folk", and just have a different way of interacting.

During our meetings they admitted making some mistakes in the way they accrued debt, by borrowing against their house among other things. But they also had extreme difficulty obtaining loans from the government agencies that are set up specifically to lend money to farmers, and even obtaining the loans was a real struggle for them. Ren says: "I tried to pursue it, and for YEARS I would be told by like FSA[29] and USDA we don't have a program that fits your farm." When asked why, she answers

[29] FSA is the Farm Service Agency, an USDA agency that administers a number of farmer loan programs.

"because I don't grow 100 acres of corn and soybeans, and they could not understand that the value of our land was not based on crop value, it was based on how many [CSA] memberships I could sell." Basically, the federal loan application forms were written for a totally different system of farming, and the agencies were unwilling to deviate from them even though Billy and Ren met all of the qualifications for approval. Finally, at a time when the farm was about to go into foreclosure, Ren found an agent who was willing to work with her. He was able to see that she qualified for loans, recognize their business model as legitimate, and get her a loan despite the fact that the farm did not fit within the normal parameters.

Their aggressive approach to scaling up and relying on loans to do so has brought them "close to the brink" a number of times. Their loan payments are so large that a bad season which causes financial loss, or high customer turnover has the potential to put them in a position where they are unable to make these payments. But scaling back is a very difficult thing to do once a farm is in this position. They have accepted so much risk, that they are always teetering, and always susceptible to catastrophic failure.

Their work ethic and their ability to learn has been a great benefit to them, but there are many things that can affect the fortunes of a farm that are not in the farmers hands. Weather is probably the most obvious and pertinent of these. A late frost, a hailstorm, torrential rains, or drought can be devastating to any farm. Being at the mercy of Mother Nature puts one in an extremely difficult and unpredictable position. At the same time, their toughness, tenacity, and fighting spirit has never allowed them to give up, and these qualities have kept the farm alive and growing for a number of years. Whether this will continue to hold is anyone's guess, but I would not bet against them.

The common theme of struggles with labor is something that Ren and Billy experienced for many years. Hiring high school kids did not usually work out very well for them, and few of their CSA members were willing to volunteer on the farm. Finally, after a number of years struggling to find reliable and skilled labor, they connected with a former migrant family that lived fairly close by, and were looking for farm work. They made a strong bond with the family, and the situation has worked out very well. Having a consistent skilled labor force with whom you develop bonds of friendship and respect is very unusual, but Billy and Ren seem to have managed to do this.

Analysis - Motivations and Fulfillment

Billy and Ren's motivations were somewhat different in the beginning. Billy was committed to the farm from the beginning, and at one point, Ren says she absolutely hated it. When every paycheck, every bonus, every waking hour seemed to be sucked into this farm void, she came to resent it intensely. But at some point she flipped. She absolutely fell in love with the farm despite all of the difficulties it entailed.

Independence and autonomy have been able to override the lack of security that farming, or any kind of self-employment entails for Ren. This was never an issue with Billy. His attraction to the farm lifestyle was always strongly connected to these factors. Skill utilization is something is a part of the job satisfaction for both of them. Their fulfillment is largely based on them doing what they are good at as well as doing something good. The related issues of task autonomy, and task variety are very much a part of their work satisfaction as well. Flexibility seems less of a factor, since they do not really experience that much of it, as evidenced by their inability to take family vacations, and their constant need to deal with customers or pressing production issues.

The aspect that Gasson has called "open air and a healthy way of life" has been important for both of them, especially Billy who loves being outside and left a much more lucrative career mainly in favor of this aspect. Purposeful activity is certainly an important element of satisfaction for both of them. They feel they are doing something good, something that is needed in the world, and they are generally fulfilled by the completion of individual tasks.

In terms of self-actualization, Ren and Billy, like the others in this study, seem to fit most of the criteria well. A realistic perception of self and others is entailed in their success in building a complex farm system, and successfully managing the farm business. Their strong antagonism toward conventional farmers and their tendency to feel slighted by others may or may not be realistic, but this is difficult to know. A high level of creativity is certainly evidenced by their uncanny ability to find ways to bring themselves back from potential disasters, and their spontaneity is supported by their willingness to take risks and make big decisions such as equipment purchases with confidence.

They are both very capable of being autonomous and figuring things out on their own. Their ability to figure out production and marketing despite the lack of help offered by other organic farmers is but one example of this. Personal growth is not something they have necessarily emphasized explicitly, but their love of farming is certainly connected to the desire to find a more meaningful and purposeful life than they were leading previously. Their choice to give free or reduced price shares to needy people in their community is only one example of their compassion. Even though they do not express humility outwardly, this seems more like a defense mechanism that they have had to employ in order to make it through difficult situations than something that is a genuine

part of their character. Their ability to accept failure and move on suggests that they actually do have a strong level of humility. Their respect for their workers, the people and the people who have been willing to help them along the way is strong and unwavering, but they tend to give respect only when they feel it is reciprocal.

Their capacity for informed decision-making is unquestionable. All of their decisions are negotiated between them, and although their decisions have not always worked out in their favor, they have always been informed. As Billy says they "have had a 5 year plan, and a 10 year plan", and were working on a 15 year plan when my research with them came to an end. In addition, Billy studied the science and research on sustainable and organic production systems intensely, and his production decisions tend to be well thought out in advance. Their capacity to cope with difficult circumstances hardly needs discussion, since their farm enterprise can rightfully be characterized as a series of difficult circumstances, from their debt burden, to their difficulty in obtaining loans, to floods, droughts, the arson that destroyed their maple syrup house, and a list that could go on for pages here.

They are also both spiritual people, and expressed in interviews and discussions their faith that God is going to look out for them, and that the challenges they have faced are simply a part of his plan. Their indifference to material comforts is undeniable as well. Their choice to tolerate their unfinished staircase, 3 feet of water in their basement, an quite noticeable lack of furniture and other issues in favor of building the farm business, as well as their choice to leave fairly lucrative and secure jobs in favor of the uncertainty of farm life is strong evidence for their indifference to material comforts. They lobbied the State Congress, regularly written the Governor, and even refuse to step

foot on the local university campus because of their opposition to GMO's and skepticism of science and technology as it is commonly applied to agriculture. And without a doubt, they are detached from social and cultural influences and highly skeptical if not downright antagonistic to most forms of structured and inflexible hierarchical institutions.

Analysis - Knowledge systems and Learning processes

Their learning processes are characterized both by their attraction to alternative knowledge systems, as Billy's statements about the value of Acres and his disrespect for traditional agricultural scientists makes abundantly clear. The aforementioned snub by most of the organic growers they contacted when first starting out has forced them to learn on their own. They consistently reference their reliance on intuition and trial and error as their primary learning process. In terms of learning and knowledge, they always trust their own abilities and rely on personal experiences. Their reflexivity is apparent in their articulation of poor decisions they have made, and their ability to separate them from just plain bad luck.

Conclusions

The stories I tell are those of families who succeeded in making a living and a life for themselves through farming despite their lack of background knowledge and resources. Farming was an intentional choice for these families, something they made a conscious decision to do. It was not a path that was laid before them, nor was it their only option as a career. They did not go to school to learn how to farm. They did not grow up on a farm and decide to continue the family tradition. Their reasons were unique, but all

aligned with their individual worldviews and ideals. They also share a number of personality characteristics closely aligned with those of 'self-actualizing' people, as described by Maslow and Rogers. As more people seek meaningful lifestyles through farming that is both economically and ecologically sustainable, the stories told here provide evidence that this is possible (though often challenging), and provide a variety of basic templates and ideas about how to make it work.

The stories of the farm families offers in-depth insight into 1) the processes by which these families came to their decision to farm; 2) the ways in which they managed to obtain the resources necessary to start and grow their farms; 3) how they were able to learn the skills necessary to become successful farmers despite their lack of traditional or formal training; and 4) the struggles and successes they have experienced along the way. These stories highlight just a few of the many different routes by which individuals can become successful farmers. They illustrate the ways in which different life experiences and non-traditional learning processes can provide many of the skills and traits necessary for farming success. Finally, they offer insights into the ways in which obstacles to farm entry can be overcome through tenacity, innovation, and passion.

Motivations for Farming

As a group, the stories help to explain first-generation farmers' motivations for choosing a life that involves uncertainty and hard work, and requires a broad range of material and knowledge resources. Most have been reticent to speak about this directly. But through the process of interacting with these farmers in their environment over several years, a few key aspects became obvious. These are: 1) The importance of freedom and autonomy in providing meaningful and fulfilling lifestyles and work

environments; 2) The feeling of wholeness that comes from an integrated lifestyle that does not separate, work, family, interaction with nature, physical exercise, and social interaction; and 3) The satisfaction of contributing to society in a positive way by providing fresh and healthy food for people while minimizing the negative externalities inherent in modern farming, and conventional lifestyles.

In addition to these observations, previous research on work satisfaction among small-scale farmers and others, as well as the characteristics of "self-actualizing" people described by Maslow and Rogers have been used to identify specific elements that contribute to the motivations of individuals to become farmers. Analysis of each farm family based on this work has revealed that there are important commonalities between them. They include the following

Independence. Each of the subjects in this study have chosen farming as a career and a lifestyle based at least in part on their desire to become more self reliant and to make individual choices about when and how they choose to work. Having the ability to make these choices independently is important to all of them. This is much more satisfying to them than success based on the completion of assignments and the importance of individual tasks that are decided by someone else (a boss or manager).

Skill Utilization and Task Variety. Farming requires a number of different skills, and the ability to integrate them. This limits the monotony inherent in many jobs. It allows individuals to prove their worth through the accomplishment of many different and difficult tasks, the use a variety of skills, and the ability to integrate them successfully.

Healthy Lifestyles. For each of the farm families in this study, personal and family health is a primary concern. Participating in an occupation that builds physical strength and provides healthy food and a healthy environment for themselves and their families is important and satisfying. In addition, the ability to be connected with their families, and to work together with them to procure their basic needs is important psychologically.

A Connection to Nature. Each of these farmers has a strong motivation to be more connected to nature. By living in settings that are ecologically diverse, spending their days nurturing plants and observing the interactions between plants, animals, and themselves, they are able to fulfill this desire/need.

Creativity and Problem Solving. One of the basic aspects of small-scale, diversified, organic farming is that it involves the need to constantly find creative ways to solve problems, and to deal with unexpected circumstances. Accomplishing these things is not only satisfying, it helps lead to personal growth, and proves intellectual capacity and worth.

Indifference to Material Comforts. The study participants all face resource limitations, that often require them to invest in the things necessary to keep their farm running rather than those that make their homes comfortable in traditional ways (never mind investing in hot tubs, boats, or other "toys"). They also present a number of physical challenges (heat, cold, intense physical labor, constant movement, long hours, and often the need to work despite pain or injury). The time requirements involved in running a farm also tend to preclude their ability to engage in leisure activities (going out to dinner, watching a movie, or taking vacations). Their choice to forgo these things in

favor of other kinds of satisfaction reflect their indifference to material comforts and in some cases, the ideological distain for the importance this has assumed within modern culture.

Spiritual Fulfillment. Though this factor is more important for some study participants than others. But all seem to have some aspect of it. For many it is related to religion or spiritual practice. For a few it has more to do with a connection to nature or the universe in a way that does not relate to any dogmatic or specific religious belief.

Humility and Respect. Each of these farmers has a strong sense of humility. Part of this is related to their various failures, and the fact that many aspects of farming success are out of their control (weather, the economy, etc.). They also tend to have a deep respect for their employees and for their customers, though for most respect requires that is reciprocal.

Skepticism of Science and Technology. This is another aspect that some exhibit more fully than others. It tends to come down to the question of "whose science" (Haraway 1997; Harding 1991; Latour 1987). Most are well read and believe in some aspects of scientific knowledge. For others, their belief in science is related to their own personal observations and experiences. Some eschew technology totally, but most consider a kind of "necessary evil". There are certain aspects of conventional agricultural science and technology (genetic modification, and the use of certain agricultural pesticides and fertilizers, for example) that all of them have some distain for.

Antipathy to Structured, Bureaucratic Inflexible Institutions. This is something that is evident either through specific articulation, or their choice to avoid interaction with

traditional agricultural institutions, except in cases where they feel they can take advantage of the programs they offer, even if they think those programs should not exist.

Learning processes

These stories provide information about specific learning processes that help small, organic, and ecologically based farmers to succeed. They also present unique, in-depth examples of how first-generation farmers negotiate the obstacles that they inherently face. Because they have found innovative ways to make their operations work despite the impediments they have encountered, the stories of these farmers are testaments to small-scale organic farming as a viable way to make a living and a meaningful life. Their combination of determination, creativity, and reflexivity help provide potential farmers with templates, cautionary tales, and a realistic understanding of what takes to become a farmer.

For these farmers, daily experience entails a continual process of reflexive decision-making. This process involves decisions about what to do, what not to do, when to do what they do, etc. Each of the farmers in these stories share a basic understanding that the ability to exert "control" over their production systems is limited. Decisions about where to expend their energy in managing the aspects of the biological, physical and social systems they can control are primarily based on a reflexive process of learning through experience (both good and bad). Negotiating the complex network of competing decisions about where to apply the limited control options they do have involves a broad and holistic way of thinking. It also necessitates making choices confidently and constantly, and the capacity to evaluate the effects of these choices. Reflexive learning requires constant adaptation through the integrated processes of observation,

experimentation, and evaluation. Perpetual uncertainty, and the continual process of learning that their experiences facilitate are an essential part of their existence. In essence, they have all learned to farm primarily through experience and "trial and error". And though reading and educational programs may be able to augment this, it appears from these stories that there is really no substitute for reflexive learning through practical experience.

Their knowledge systems can all be described as "alternative". All farming systems are different, and every piece of land, even on an individual farm has it's own particular characteristics. Therefore, learning must necessarily be based on observation and the process of learning the specifics of the different parts of their farm. There is simply no substitute for local knowledge in this kind of farming.

The case studies presented here do not discount the importance of social learning systems within organic farming. Indeed, two of the farmers whose stories are presented here have certainly benefited from "learning communities" in some way. But the bulk of their "knowledge systems" are based on individual adaptations, orientations, and ontologies. While they all have (to a greater or lesser extent) taken information from their predecessors, and other "knowledge producers" within organic agriculture, their main source of learning has been themselves. Thus, a considerable amount of learning and innovation takes place in the field through innovation, instinct, and experimentation. Morgan and Murdoch (Morgan and Murdoch 2000) describe the concept of the "tacit or local knowledge which emerges in a rather unplanned and unforeseeable fashion as bounded actors evolve ways of doing things in local situations which are context dependent," (p.161). The farmers in these case studies have all mad a conscious effort to

pursue alternative ways of knowing and independent ways of learning, and for each this practice has been "reflexive" in the modern sense (Giddens).

I was able to apply a few basic generalizations about the learning processes of the first-generation farmers I worked with based on my interactions with them. But I also believe, based on these studies, that too much generalization can be problematic in the study of individual farmers lives and learning processes. These things tend to be very personal, nuanced, and result from a complex set of experiences and ideologies. Each chose to reject the traditional expert-based knowledge systems through upon which most farmers rely. Instead, they learned instead from anarchists, monks, the Rainbow Family, and Martha Stewart. Perhaps more importantly, they all chose to learn independently through their personal experiences and in ways that are consistent with their own evolving belief systems. Most do not all hold conventional farmers in contempt, but they have all had strong opinions about the problems inherent within the dominant agricultural system. Both their choice to farm and their choices about how to farm are influenced by their rejection of social norms, and their decision to find an alternative way of making a life and "a living".

Mitigating loss and accepting "failure" is an inherent reality for each of these farmers. As a result, they each exhibit unorthodox ontological perspectives about what constitutes "success". The contemporary culture of "work" within American society typically recognizes success based on the accomplishment of tasks ("closing the deal", "making the sale", "getting the job done", etc.), the achievement of rank, and above all – economic rewards (Kasser and Ryan 1993). Diversified farming systems involve a multiplicity of processes, projects, and goals. The farmers in these stories each recognize

"success" only in partial and fleeting ways. For all of them, success hinges on their ability to stay in business and make it through to the next growing season. The way in which they discuss success and failure is consistently related to their experience producing and selling individual agricultural products (what is working, what is not, and why).

These stories show that both the path into farming and the ways in which it is understood and practiced can be distinctly different for individual farmers. But they also emphasize the shared characteristics in the backgrounds, practices, and values of the farmers whose lives and livelihoods it explores. Their choice to pursue an "alternative lifestyle" is the most obvious. Each of these farmers made a conscious decision to "swim upstream", choosing to enter a profession that is risky, requires hard work, and seldom offers financial security. At the same time, they all chose it willingly, and fought hard to make their way into it.

While their decisions and actions are seldom random or unconsidered, their articulation of them is often as simple as "it seems to work well for us". Similarly, in cases where ethical issues are involved (for example: do we poison the groundhogs with something that might be toxic to us or to the soil, do we shoot them, do we trap them and release them down the road, or do we just plant a little more and let them take what they will?), their answer is usually, "we think it is the 'right' thing to do".

They tend to be aware of their own effects on the ecological system they are trying to coax a living out of. They are all "blazing their own trail", and chose lives that entail difficult, intentional, and independent learning processes. They are all very

analytical, but also very intuitive. For the most part these farmers do not seem to consciously separate “learning” from “doing”.

Because it is limited to a few subjects, this study cannot draw broad conclusions about small-scale, organic, first-generation farmers in general. But it does present much more intimate, nuanced, and specific information about histories, motivations, practices, and personalities of the research subjects than would be possible with a large group. The benefits of doing intensive field-based research, as Hassanein (1999) has pointed out, are related less to the kinds of generalizations that can be made from the findings, than to the ability to explore dynamic situations and systems in detail.

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THE EVOLUTION OF ORGANIC IDEOLOGY, VALUES, AND PRACTICES: FROM THE BACK-TO-THE-LAND MOVEMENT TO CONTEMPORARY FIRST-GENERATION ORGANIC FARMERS IN MICHIGAN

The return to marginal farmland on the part of some young people is not some nostalgic replay of the nineteenth century. Here is a generation of... people finally ready to learn from the Elders. How to live on the continent as though our children, and on down, for many ages, will still be here (not on the moon). Loving and protecting this soil, these trees, these wolves.

- Gary Snyder, 1974

Introduction

In the late 1960's and early 70's over a million Americans participated in a large scale migration to communes, homesteads, and farms in what is now known as the "back-to-the-land movement" (BTTL) (Agnew 2004; Jacob 1997). Shi (1985) suggests as many as 5 million American adults were committed to living a "simple life" during this time, and twice this number subscribed to some of the basic tenets associated with the movement. The back-to-the-land movement era was also a unique period in modern American history, temporarily reversing the trend of more people moving from rural to metropolitan areas, something that had not been seen since the depression era of the 1930's (Jacob 1997 p.20-21).

More than thirty years later there is resurgent interest in small farming, and a significant number of 'first-generation farmers'[30] who are choosing to go 'back to the

[30] The term 'first-generation farmer' is used to refer specifically to individuals who did not grow up on farms, but have chosen to pursue farming as their primary occupation. Capital access limitations faced by these farmers, the cost of farmland and infrastructure, the demanding nature of farm work, and the fact that farming is seldom lucrative also

land' (BTTL). The United States Department of Agriculture (USDA) reported that the number of small farms grew significantly between 2002 and 2007 (USDA-NASS 2009a). This increase is due, at least in part, to a growing interest in organic and 'sustainable' farming among young people with no prior agricultural experience. In recent years, there has been a proliferation of sustainable agriculture and new farmer training programs run by colleges, universities, and non-profit organizations to accommodate this increased interest. The Sustainable Agriculture Education Association[31] lists over 65 academic programs focused on alternative and organic agriculture, and 45 organic or sustainable student farms currently operating at colleges and universities in the U.S. Private non-profit educational programs for new farmers interested in alternative agricultural production such as CRAFT (Collaborative Regional Alliance for Farmer Training)[32], and the Land Stewardship Project's Farm Beginnings Program®[33] are also proliferating steadily.

This paper explores the connection between the modern resurgence of interest in organic and small-scale local farming and the BTTL movement of the 1970's. A qualitative historical analysis detailing the evolution of organic ideology, values, and practices from the early 1970's through 2010 is used to analyze both the changes and consistencies in organic thought and practice over this period. A set of over 1,400 newsletter "items" from a Michigan organic farmer cooperative that began in 1973 and

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means that many are small-scale, and often sell at least some of their products directly to consumers.

[31] See http://sustainableaged.org/ (accessed 8/4/2013).

[32] See http://www.craftfarmers.org/ (accessed 8/1/2013).

[33] See http://landstewardshipproject.org/morefarmers/farmbeginningscourse/fbotherregions (accessed 8/2/2013).

was published for over 30 years, as well as series of interviews and participant observations with two BTTL farmers and 13 contemporary first-generation organic farmers provide the basis for this exploration.

The connection between the BTTL and earlier organic farming movements has long been established (Conford 2001). This paper examines the process by which BTTL farmers and organic farming organizations in Michigan helped to develop and promote modern organic and local farm and food movements over several decades. In addition to describing the way in which this process has provided opportunities for new farmer entry, it offers a discussion of the similarities and differences in ideology and values between BTTL movement practitioners and contemporary first-generation organic farmers.

A number of publications have emphasized the way in which specific political actions and cultural changes have shaped organic values over the past 25 years. These events and changes include the development of the BTTL Movement and renewed interest in organic farming (Agnew 2004; Belasco 1989; Conford 2001), as well as the development of a National Organic Program (Deaton and Hoehn 2005; DeLind 2000; Duram 2005; Entiene 1998; United States Congress 1990; Vos 2000), and the proliferation of processed organic products (DeLind 2000; Pollan 2001). It has been argued that federal rules regarding organic certification have led to industry consolidation (Howard 2009; Sligh and Christman 2003), increasing farm size, input substitution, and poor working conditions among other things (Buck, Getz, and Guthman 1997; Guthman 2004a).

Ironically, the success of organic agriculture seems to have facilitated the development of an industry that often replicates elements of the conventional system that

BTTL organic farmers specifically set out to oppose. Furthermore, as this paper will discuss the fact that many of these BTTL organic farmers were actively engaged in promoting the legislative changes that precipitated this situation, albeit inadvertently. This importance of this irony is not lost on many of those who fought for, and retain their belief in the necessity of organic standards, yet are conflicted by its results.

Organic farming is by no means monolithic, and its "success" has had many upsides for its more "ideologically-based" proponents and practitioners. Small-scale organic farmers have benefited from rapidly increasing market opportunities and price premiums. Opposition to "industrial organic" has helped to drive local food and urban farming movements that have created a niche for many farmers that not only provides needed income, but also a certain level of prestige and respect. New economic opportunities have allowed organic farmers and advocates to transform urban parking lots into bustling food markets; to introduce organic products into schools, hospitals and local restaurants; and to develop markets that are supported by their local communities.

This study presents evidence that these changes have been gradual. It also suggests that these gradual changes in production knowledge and the development of local markets for organic produce have been important in providing opportunities for new farmer entry. These changes, while creating opportunities have also led to differences in the way that the ideologies held by organic farmers are articulated. Within both the newsletters and the interviews/interactions, ideology and values are expressed through issues and opinions related to a broad array of topics including: environmentalism, marketing, certification, production, soil health, and community. Changes over time in the ideas and values that inform small-scale organic farmers might seem inevitable,

especially given this broad array of topics, the speed and scale of organic market developed, the changes that have taken place in organic rules, as well as how and by whom these rules are negotiated and defined. The rapid pace of technological, political, and cultural transformation within society as a whole might logically be expected to affect value systems as well, by influencing the way that individuals interact with and understand their worlds. This paper argues, however, that despite the alteration of practices, markets, and the expression of ideological issues among small-scale organic farmers, their shared values have remained relatively constant.

The evidence presented here also suggests that the gradual changes in organic practice, opportunity structure, and ideological expression have largely resulted from the actions, or at least with the complicity of many small-scale, values-based organic farmers from the BTTL movement farmers of the 1970's to the member's of organic farming organizations that helped to negotiate the development of organic standards, and facilitate the growth of local markets for farm products. These farmers have not always agreed on the appropriateness of changes that they have facilitated, nor have they always been happy with the outcomes of these changes. Public interest in organic products, and political acceptance of organic practice has had consequences that were not necessarily foreseen by the individuals and organizations that promoted broad acceptance of its legitimacy. These consequences include the proliferation of industrial scale organic farms, the popularity of processed organic products, and a de-emphasis of ideological aspects once central to the organic movement. Such developments have often been sources of frustration and disappointment among organic advocates who unwittingly facilitated them.

The contemporary organic farmers interviewed for this paper have certainly been influenced by changes in organic farming and markets. There does not however, appear to be a particularly wide gap between the basic interests and motives of contemporary small-scale organic growers and those who preceded them. Values-based organic farmers in Michigan have often had disagreements among themselves, many of which were/are directly related to the nature of the aforementioned changes and their consequences. Many of the most vocal and active members of this community are strong willed and highly opinionated. It is significant, however, that in spite of the intense and vocal personalities of many movement members, and the rapid pace at which organic opportunities, practices, and rules have changed, the animosity and conflicts that have taken place, do not appear to have a strong generational component.

This observation is important for several reasons. First, it reinforces the previous notion that the values upon which a decision to farm organically is based have remained relatively static over time even in the face of significant change. Second, it precludes any particular unwillingness among more established farmers to pass on knowledge, encourage new farmer entry, or work together with the next generation on issues that require unified advocacy or political organization. Finally, it suggests that the entry of young, beginning, and first generation farmers, may help retain a strong values-based component within the organic movement and allay concerns that organic farming as a whole will eventually become nothing more than a business strategy based on input substitution, efficiency, economies of scale, and other aspects characteristic of mainstream industrial agriculture.

Understanding both the consistencies and changes in the way organic ideology and values have been articulated, emphasized, practiced, and evaluated by small-scale organic farmers over time will: 1) highlight the similarities and differences in values, opportunities, and practices between BTTL farmers and modern, first-generation, small scale organic farmers in Michigan; 2) offer cultural, political, and social explanations for these similarities and differences; 3) highlight the gradual nature of changes in ideology among small-scale organic farmers in Michigan over time; 4) emphasize the way in which the development of legislation that has allowed the proliferation of large industrial organic operations has also been beneficial to small-scale organic farmers and created economic opportunities for beginning and first generation farmers; and 5) present an analysis of the potential for the continued establishment and development of values-based first-generation organic farmers.

The Back-to-the-Land Movement: Origins and Overview

The BTTL movement of the 1960's and 70's offered alternative ways of living that were in direct opposition to both the conventional agricultural system and dominant cultural norms of the time. BTTL farmers were strongly committed to organic agriculture, small farms, and self reliant living (Agnew 2004; Belasco 1989; Jacob 1997). It is possible that the BTTL movement was simply a singular occurrence, an aberration based on the disaffection many young people felt in the wake of failed social movements of the 1960's. While this may have been an important factor in its development, it has also been argued that the BTTL movement was part of a larger organic movement that was in existence for some time prior to the mass migration of young people back to the land (Jacob 1997).

The connection between the BTTL movement and earlier movements that challenged 'mainstream agriculture' are in fact well documented (Belasco 1989; Brown 2011; Calhoun 1993; Conford 2001; Jacob 1997). Beginning in the 1930's, an "organic" movement questioning the use of synthetic fertilizers in agriculture began to emerge. Until the post World War II era, this movement was a legitimate and powerful counter to the adoption of chemical-based agricultural systems and industrial farming (Conford 2001).

An emphasis on soil health, plant health, and opposition to "synthetic" fertilizers were essential aspects of the early organic movement and the philosophy upon which it was based (Belasco 1989; Conford 2001; Dabbert, Haring, and Zanoli 2004; Fromartz 2006). These elements have persisted from its inception through the beginning of the BTTL organic movement and into the modern era. Healthy soil as the basis for healthy plants was one of the basic principles upon which the original organic movement was built (Conford 2001; Fromartz 2006). In 1940, the organic pioneer Sir Albert Howard proclaimed his view that resistance to disease was based on balanced soil fertility (Howard 1940). The idea of "feed the plant, not the soil" is a maxim that persists within organic agriculture to this day.

Jacob (1997) suggests that the development of an "ecological consciousness" may be "the most enduring legacy" of 1960's countercultural ideology (p.10). The BTTL movement certainly embraced this wholeheartedly, and it was clearly an important motivator for the development and scale of the movement. As Kaufman (1972a) points out, the BTTL movement embodied "…a powerful critique of the established techno-culture" and "…with this new [ecological] awareness [came] a reassessment of priorities"

as BTTL movement participants began "…to seek for a way of life in harmony with [the] natural environment…" (p.66).

BTTL movement participants, while connected in a number of ways by their motivations, did not hold uniform ideological perspectives, nor did they all choose to live in the same way (Agnew 2004; Jacob 1997). Independence, freedom, and self-reliance were fundamental to the movement, but individual adherents chose different ways to explore these things. Some were interested in communal living, while others were focused more on individual autonomy. Relatively few actually considered themselves farmers or thought of food production as a potential source of income. It was, however, the BTTL movement practitioners who thought of themselves as either farmers or "homesteaders"[34] who stayed on the land for a significant period of time, and were committed to organic values (Connor 2005, Personal Interview). Those who were strongly dedicated to food production either as a form of subsistence or as a way to make a modest income tended to outlast the communards and "drop-outs" who were simply exploring alternative lifestyles (Jacob 1997). These are the BTTL farmers who, like Conner, formed Organic Growers of Michigan (OGM), and continued to farm long after most had returned "from the land".

Organic Ideologies and Values

Ideologies are coherent belief systems that inform both actions and goals. They often vary somewhat in content and emphasis among individual small-scale organic

[34] The term "homestead" can be dated back at least as far as the *Homestead Act*, signed into law by President Abraham Lincoln in 1862 for allocating land outside of State borders. In the 1960's and 70's, the term "homesteading" was appropriated by the BTTL movement to mean autonomous country living.

farmers. They are also malleable, meaning they can change over time. Such change can be based on the fluidity of social and cultural understandings or the acceptance of new knowledge (whether obtained from an outside source or through personal experimentation/analysis). Particular ideologies tend to become dominant, or fight for dominance within a society at any given time (political ideologies are the most common example of this phenomenon).

Organic ideology, to the extent that it is coherent, has long been overshadowed by the dominance of a "conventional" ideology that supports an agricultural system based on technoscience (Haraway 1997; Latour 1987; Latour 1990) and economic efficiency (Schmid 2004). In its most basic form, "organic ideology" can be described as a coherent system of beliefs about how to produce healthy food in a way that is environmentally responsible and ecologically sustainable. The term "organic" has also been altered over time, through rulemaking, product development, political action, and economic changes.

Values are basic ideas about 'right' and 'wrong', and although they often inform ideologies, they are more limited in scope, more easily defined and understood, and tend to be more static. Individual values are usually deeply embedded in a person's character, are often formed early in life, and tend to be relatively concrete. Like ideologies, the values of individual small-scale organic farmers can differ in some ways. There are, however, far more consistencies than variances among them, at least in terms of issues related to organic farming.

Whether malleable or static, individual differences in motives, ideology, and values are not easily placed along a continuum. Many BTTL movement members had ambiguous or personal motivations for "dropping out" of mainstream society. There was

also a strong utopian element to the ideologies and beliefs held by many movement practitioners (Agnew 2004; Kaufman 1972b). Some also had socio-political motives for choosing to participate, believing that what they were doing was going to fundamentally change the structure of society. Contemporary farmers, on the other hand, seldom buy into this belief. The general trend appears to be one that is moving away from a utopian vision of cultural revitalization through a return to rural simplicity. Instead, today's farmers see their endeavors as a practical way to help themselves, their families, and their communities stave off or survive the potential disaster they expect modernity to eventually bring. As a movement that began during the cold war, and continued through the oil crisis of the mid 70's, it is likely that many BTTLanders had similar motivations.

While it is difficult to generalize about BTTL movement ideology, many participants clearly shared a number of basic values and, as we shall see, continue to share many of these values with today's small-scale first-generation organic farmers. There are some basic ideological differences between the two groups as well. The fact that ideology has changed incrementally, however, and that these changes tend to be quite personal, means that they become apparent only through a careful analysis of candid and often quite personal discussions with individual farmers.

Data Collection and Analysis

The primary sources of original data used in this qualitative paper consist of: 1) a collection of newsletters from the organization Organic Growers of Michigan (OGM)

published between February 1973 and Winter 2002[35]; and 2) interviews and discussions with small-scale, organic[36], first-generation farmers who entered the profession between 1973 and 2007.

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[35] Shortly after its inception, OGM "Chapters" began to form in different areas of the state. Most of the collection consists of newsletters that were distributed to OGM members statewide. There were periods when a statewide newsletter was not published. During these periods, the collection consists of newsletters published by the founding chapter of the organization (Southwest Michigan). There are also several periods during which either no newsletter was published, or were lost by the archivist. These include October 1978 through December 1979; March 1983 through January 1984; January, February, and April through December 1985; June, July and November, December 1988. The newsletter was published monthly for most of the organization's history, and occasionally there is a month missing from the collection. It is unclear whether this was because no newsletter was published during these months or whether they were lost, though it was likely the former since this most commonly occurred during the summer when farmers are particularly busy. In Fall of 1995, newsletters became quarterly, rather than monthly, and continued as such until December 1996, when monthly publication resumed. Newsletters became quarterly again in Spring of 1999, and remained so through the last issue in the collection (Winter, 2002). Newsletter editors came and went over the years. Sometimes the editor is identified, and sometimes they are not. The name of the newsletter also changed several times and was variously called "Organic Broadcaster", "Organic Farmer", "Fourth Tuesday", or had no specific title at all.

[36] All of the farmers interviewed followed organic practices. Some are "certified" organic farmers while others are not. The USDA National Organic Program (NOP) exempts farmers who produce less than $5000 per year in agricultural products from organic certification, but only one of the interview subjects falls into this category. Other interview subjects have chosen to forgo organic certification for one or more of the following reasons: 1) certification costs money, and despite the fact that farm bill has provided "cost-share" money to ameliorate the price of certification (administered through state organizations), some expressed opposition to the application process involved in the cost-share program based on the idea that it is time consuming, or that it asks questions that constitute an invasion of privacy; 2) for those selling directly to consumers, the certification process is unnecessary because their customers know them, understand their practices, and trust that they are following organic protocols; 3) opposition to the content of the organic standards required for certification (for example, one farm family I interviewed refused to participate in a process that allows the use of blood meal and bone meal, based on their vegetarian values); or 4) belief that the certification process itself was an invasion of their privacy.

Newsletters

The OGM newsletter collection was archived and provided by a founding member of the organization. Newsletters were never available for sale or to the public at large. They were sent directly to dues paying OGM members. Newsletter content includes items such as original articles, notices of meetings or talks, reprints of non-OGM articles, event announcements, updates on the status of organic inputs that were purchased cooperatively by members, poems, items for sale, cartoons, and more.

All newsletters were reviewed, and each "item"[37] was summarized and coded for content. Codes were developed based on themes and concepts (See Appendix 2) that recurred throughout the newsletter collection. These themes and concepts were identified as useful to understanding the evolution of the organization and in answering the research questions upon which this paper is based. Brief descriptions of 1,406 newsletter items were identified by newsletter date, summarized, and coded[38] using Microsoft Excel.

Analysis and coding of OGM data differs somewhat from the codes used in the interviews with organic farmers for two main reasons. The first is that content analysis of published resources is not the same as that for a transcribed interview with a single

[37] An 'item' consists of any single article, editorial, listing of items for sale, event announcement, etc.

[38] A total 32 codes were originally developed based on the pertinence of newsletter content to various issues related to this and other research projects. (a number) of these codes proved specifically useful for this analysis, and were used in identifying content related to this study. They are listed in Appendix 2.

individual, or a set of field notes. The second is that the codes used for analyzing OGM newsletters were developed long before this particular study was conceived[39].

Farmer Interviews, Observations, and Discussions

Subjects were identified through a "snowball sampling", which consisted of identifying respondents who then referred other farmers who were willing to participate in interviews and farm visits. Snowball sampling is recognized in qualitative research as a legitimate method for identifying research subjects who are both capable of and willing to provide in-depth information about specific subjects (Patton 2002). In this case, personal connections made through conferences, meetings, and interactions with members of the two of the most active and prominent small-farmer and organic advocacy organizations in Michigan, were the used as the basis for identifying appropriate and willing subjects.

A list of the 15 "small-scale"[40] organic farmers/farm families were interviewed, and information about when they were interviewed, how many times, whether they were 'certified' organic during the time they were interviewed, and the year they began farming is included below (see Appendix 1). With the exception of 'Connor', all interview subjects were first-generation "organic"[41] farmers. Because some of these

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[39] In spite of this, many of the original 32 codes were found to be pertinent to this analysis. More importantly, none of the issues, questions, or ideas from the data lacked a code that indicated their existence or location within the newsletters.

[40] Their farms ranged in size from 20 acres to several hundred acres. Actual production area for organic crops however, was significantly smaller than the total farm acreage.

[41] See footnote 7.

interviews served a dual purpose[42], the list of interview questions differed between different subjects. Codes developed for this study were specific to the content investigated (See Appendix 3).

Subjects were interviewed between 1 and 5 times, though only 5 were interviewed more than once. Interviews lasted between 1 and 2.5 hours. Most interviews were recorded and transcribed. For those that were not, detailed notes on the interview questions and answers were recorded by hand. Data for all interviews were based on a specific set of questions developed beforehand, but subjects were allowed to discuss issues and express opinions that diverged from these questions. The questions used in cases where farmers participated in multiple interviews were also iterative, evolving based on reflexive evaluation of emergent themes and issues (Rubin and Rubin 1995).

Through this process three primary themes were identified to describe and compare the evolution of organic ideologies and values, both within OGM as an organization, and as expressed by individual farmers. They are 1) personal values and adherence to the ideologies held by OGM participants, other interview subjects, and those who formed the basis of the original organic movement; 2) reactions to, and opinions about organic certification processes and rules, the way they have changed over time, the way they are applied, whether individuals choose to participate in them and why/why not, as well as perceptions about the organic industry as a whole; and 3) an understanding of the way that marketing opportunities and cultural perceptions have changed over time

[42] Several of the interview subjects, and the content of interviews conducted with them served the purpose of answering questions related to both this paper and other papers on related topics.

with respect to both organic products, and the potential for local and direct sales, as well as what this means for each individual farmer.

Overview of Organic Growers of Michigan (OGM)

OGM was an incorporated, non-profit cooperative of farmers and supporters, first organized in early 1973. The stated goals of the organization were organic education, certification of organic farms, group purchasing or organic supplies, and group marketing of organic products. Farmers of the BTTL movement both initiated and drove the focus and agenda of OGM throughout the 1970's. OGM later became involved in advocating for local, state, and national issues related to pesticide use, the promotion and marketing of organic products, and the content of national organic certification standards. The organization developed quickly, and soon had several chapters across the state. It began publishing a monthly newsletter in February of 1973, and continued to fulfill many of its goals well into the 1990's. The organization disbanded in 2007.

The original proposal for the founding of OGM was spelled out in a letter sent to organic farmers in January of 1973. This letter suggested that the purposes of "The Association" include: 1) "finding suitable markets"; 2) "development of standards and grades: local certification of the adherence to standards by association growers"; 3) "exchange of information"; 4) "cooperative buying of supplies"; 5) "cooperative planning for orderly marketing"; 6) "informal trading of organically-grown commodities within the association"; and 7) "contacting and advising non-organic growers who bight be interested in converting to an organic operation".

Similarities and Differences Between BTTL an Modern Small-Scale, Organic, First Generation Farmers

Defining Organic

In the early 1970's content of OGM newsletters focused primarily on issues that defined members' common ideology. For the first few years, much of the newsletter content focused around: 1) healthy soils as the basis for healthy agriculture, plants, and people; and 2) opposition to use of 'chemical' fertilizers and 'synthetic' pesticides as well as the economic and social structure that promoted them. Defining what they believed in and what they opposed built consensus among members about their shared organic ideologies, practices, and beliefs. Early OGM newsletters not only discuss appropriate organic practices, they argue that organic systems are more sustainable, environmentally sound, and healthier for people and the environment than "conventional" farming systems.

An article printed in the November 1974 newsletter provides a clear example of this. The article is a description of one member's farming practices, but also places particular emphasis on soil health and the detrimental effects of pesticides and synthetic fertilizers on soil ecology:

> Organic farming, and gardening, include many different methods of handling the soil. The important fact to remember is that the soil is alive, full of living organisms which will be of greatest help to the farmer in producing healthy crops with quality yields if he will study natures methods and cooperate with them. Acid treated fertilizers are not a part of that co-operation for the acids kill the living organisms in the soil and soon the soil itself is dead. Organic farmers avoid the use of poison sprays, insecticides, and herbicides, which destroy not only the 'undesirable' insects and bugs but also many that are beneficial thereby causing an imbalance in many natural life cycles. It takes a living soil to produce healthy plants, animals, and people.

In contrast, contemporary organic farmers don't need to spend time defining organic, or appropriate organic practices. This is partly because organizations like OGM have already done it for them, working to make "organic" part of our lexicon, by both defining it and giving it social value. In the years since the quote above appeared in the OGM newsletter, numerous books and magazines focusing on organic farming have been published, organic research has become more common, and the internet has become an important source of information about organic farming practices and beliefs. As a result, someone who decides to become an organic farmer today does not have to do the work of defining and defending organic a legitimate (and preferable) way of growing food in the same way that the BTTL farmers who started OGM did. Organic farmers today don't necessarily agree on every aspect of the practices and principles that are appropriate. On the other hand, they agree about its core aspects, accept that there are different ways of practicing it, and don't tend to find the process of defining or justifying it necessary.

Now that the "fight" for the legitimacy of organic and sustainable farming is for the most part done, the organic farmers are moving beyond ideological conversations about the 'how' and 'why' of organic, and are talking more broadly about values-based issues. These include economics, community, living a 'meaningful' life, respect for nature, vegetarianism, and feminism. Even farmers' who started out in the early 1980's like Brent and Mary, are much less focused on particular inputs, and more focused on other ideological factors. When talking about their decision to farm organically Mary remembers, "We knew it was going to take us a little longer doing it that way, but we thought it a lot more… sound." Brent puts organic in opposition to "the wonders of

white… white bread, white shoes, white socks you know, like sugar; and I hated white" he says.

Certification, Passion and Collective Political Action

Organic farming has also been codified and legally defined by the federal government through the Organic Food Production Act of 1990 (United States Congress 1990) and the establishment of production rules under the National Organic Program (NOP). Many small-scale organic farmers who engage in organic practices have chosen not to participate in the NOP for a variety of reasons. For some it simply isn't necessary. They sell products directly to consumers and these personal interactions allow for a level of trust, and give these farmers the opportunity to explain their practices. Organic certification also costs money and requires filling out paperwork that typically includes a questionnaire requiring details of many aspects of the cropping system, and a farm map. This investment of money and time simply isn't worth it for farmers who can get premium prices for their products without being certified. Some farmers object to the level of intrusion that certification entails, both through the detailed questionnaire and through the farm inspection process required by the NOP. Other farmers refuse to participate in the NOP because it is a federal government program. Several disagree with the list of allowed products and practices, and most resent the it allows industrial farms for whom organic practice is largely an economic decision, and the resource intensity involved in both highly mechanized organic farms, and the importation of organic food from foreign countries.

Most interview subjects expressed mixed feelings about certification. They tended to recognize the necessity of a system that requires farmers claiming to be "organic" to

show that they are following certain rules. The subjects who were certified generally considered it a necessity for marketing, and a minor inconvenience. These individuals universally acknowledged that not all organic farming was equal, and believed that issues of environmental sustainability and ecological diversity were not sufficiently addressed by the current rules. These rules simply provide a baseline for organic production and processing which includes specific rules for practices and inputs, but do not encourage or reward farmers for exceeding the rules. Dirk, who supports the existence of organic standards, is one of the farmers frustrated by this approach. He says that:

> Organic certification is a very good thing for setting a minimum standard for stuff… [but] we eat this stuff, we, we're beyond organic, we don't use anything on the organic list except for Safer Soap early on in the greenhouse occasionally. We haven't used a chemical here yet… that may change and we'll stay within the organic rules. But to me to certify is to, put a minimum standard on it and I think we're beyond that… Philosophically farming and particularly organic or beyond organic farming aligns very well with who we are, what we want to be…

Several interview subjects also lamented the loss of OGM and were disappointed that there was no longer a Michigan-based certifier focused on small and mid-sized farms. In general, however, most interview subjects seemed to consider certification just one of the realities inherent to their choice to practice organic agriculture.

OGM began working on organic standards in 1973, and continued to do so until its dissolution in 2006, at which time it had been an accredited organic certifier under the NOP for four years. It is therefore understandable that members of the organization involved in different aspects of this long evolutionary process would have stronger opinions about the content, importance, and implementation of organic standards.

A comparison of the content of NOP standards with those adopted by OGM in 1973, offers a stark contrast. The Code of Federal Regulations that defined the National Organic Program Final Rule (Agricultural Marketing Service 2002) was a 210 page document when it was first released in 2002[43]. In contrast, OGM Standards from the early 1970's were less than a page. The crop standards consist of a short list of acceptable inputs, and state that no "chemically refined or processed additives" may be used in the process of fertilization, soil preparation or pest control. The certification process cost 5 dollars and consisted of a brief questionnaire and a farm visit by another member of the organization.

The organic standards and the certification process implemented by OGM gradually became stricter and more complex over the years. The development of knowledge regarding the toxicity of different inputs and their effect on the soil; the fact that "natural" products could be quite toxic, the importance of crop rotations; the physical and biological processes involved in composting animal manure; and the development of more effective organic techniques for the control of pests were continually being incorporated into the standards. These discussions were often intense, heated and occasionally confrontational, but they did serve to bring farmers together (at least physically), especially when there were specific political issues that they agreed on.

The newsletters show that although not all OGM members were proponents of a national organic standard, most saw it as inevitable, especially after the passage of the Organic Foods Production Act. Additionally, the majority of OGM members had worked

[43] This does not include the 344 page summary of public comments and clarification of regulations within the program that were released with the Code. In addition, there have been a number of changes and clarifications to the Code in subsequent years.

for years to design and develop their own standards. The idea that standards were essential to protecting organic integrity was a fundamental part of OGM's mission, and a significant element of the work they invested throughout their history. The organization's members were wary of the way a federal institution might design and implement such a standard. As a result, they spent significant time and energy in dialog with other organic advocacy groups from across the country, with the Michigan Department of Agriculture, and with the politicians and agencies within the federal government who were committed to or tasked with the process of developing organic standards. Organizations like OGM were, after all the foremost experts on organic standard development and implementation, having practiced It for a number of years.

In February 1998 a discussion of appropriate organic practices focused on the rejection of proposed organic standards that include irradiation, sewage sludge, and genetically modified organisms as acceptable practices within organic standards. Elsewhere these issues become known as "he big three" (Fromartz 2006; Guthman 2004a; Guthman 2004b; Vos 2000). This became a central focus and a galvanizing issue for the organization. Letters are written, meetings held with legislators, and slogans, discussions, and activism began to dominate the newsletters and discussions among members. There was a re-invigoration of organic pride, values, and ideology associated with this effort, which helped the organization establish its legitimacy as valid expert in the process of negotiation the content of the forthcoming organic standard. People begin to turn up at meetings again and discussions about the definition of organic are reinitiated. These issues facilitated discussion, political action, and galvanized the organic

farming community. Their opposition eventually resulted in the removal of these elements from the standard,

Today, there is very little collective action among organic farmers based on political issues, and limited discussion about appropriate practices. There is, in fact, very little interaction among the broader community of organic farmers in the state at all, outside of conferences and the generally cordial but somewhat superficial social interactions that take place at farmers markets. The intense debates over certification that brought organic farmers together and spurred passionate discussions about practices and politics seem to be a thing of the past. There is a loose camaraderie between them, but broad discussions or actions simply aren't something that small-scale organic farmers tend to engage in today. In general, organic farmers within the state are not organized enough to participate collectively in political action or other forms of activism. They may lack the catalysts that required this of their predecessors (like issues regarding certification standards), they may simply have a different outlook about the importance of collectivity, or (with the loss of OGM) they may lack organizational structures capable of bringing them together.

There are pockets within the state where this is less the case. In local areas such as Traverse City, Lansing, Kalamazoo, Ann Arbor, and even among urban farmers in Detroit, there is organized political and social activity based on shared values and interests. Interview subjects have suggested that within these pockets, interaction and engagement in efforts that promote organic farmers and organic products, beginning farmer development, and collective political action, tend to focus primarily on local issues, and building strong communities. At a time that communication and information

sharing across distances has become easier, it seems illogical that political action has become more localized than it was in the BTTL era, or during debates over organic standards. Perhaps the adversarial relationships that developed over the years between organic farmers in different regions, or the increased number of small-scale organic farmers and advocates within these local communities have facilitated this development. Whatever the reason, statewide collective action on issues related to food and farming has given way to more localized forms.

The collective spirit and shared values that form the basis for localized community action among contemporary small-scale farmers and farming is similar to that practiced by BTTL farmers. A strong commitment to community, encouraging environmental sustainability, and promoting self-reliance are among the central overlaps. One difference appears to be an evolution in emphasis in the concepts of community autonomy and self-reliance from individual farms and communes, to local regions.

Environmentalism and Personal Health

There is a clear emphasis on environmental issues in the motivations and actions of both BTTL and modern organic farmers. Objection to the use of toxic inputs based bon the negative effects these products may have on both human and ecological health. The previous section about certification standards alludes to the fact that contemporary farmers have a much more informed and nuanced understanding regarding the toxicity of specific inputs. In the early days, OGM members believed that the most important distinction was between “natural” and “artificial” products. Today, there is an understanding that natural products can be toxic, while some manufactured products are

relatively benign. Furthermore, there have been great strides made in the discovery of cultural and biological practices that limit the need for inputs in organic farming systems.

OGM members not only eschewed "synthetic" products and poisons, they also fought (successfully in some cases) to have certain products banned from use in any agricultural system, and to protect their farms from contamination by spray drift from neighboring farms, and public programs that used aerial sprays for mosquito control. Modern farmers have benefited from their efforts to ban some of the more toxic inputs, by rules that require buffer strips between their farms and those of their conventional neighbors, and by laws that hold neighboring farms responsible for contamination through spray drift.

They do have new issues to deal with, however. These include the potential for contamination of their crops by genetically modified organisms, stricter rules about manure application, constantly changing regulations regarding allowed products, and more complicated organic and food safety inspections. Increased knowledge also requires them to make decisions about the environmental implications of inputs that may have been mined in foreign countries and shipped half way around the world to reach them.

Macro scale environmental issues and concerns have changed over the years as well. OGM newsletters show that BTTL farmers worried more about acid rain, air pollution, and nuclear power. Today's farmers tend to express concerns about climate change, natural resource depletion (though the oil crisis of the early 1970's made petroleum a common concern), loss of pollinators, franking, and urban sprawl.

Both groups have been motivated by personal health. Physical work, access to fresh, healthy, natural food, the psychological benefits of being close to nature, escape

from the industrial pollution in urban areas, the banality of traditional employment, and a number of other factors.

Attitudes about Conventional Farming and Agricultural Industrialization

Both the newsletters and interview subjects expressed opposition to conventional farming practices, the role of agricultural corporations, and concentration within the agricultural industry. Newsletters from the end of 1973 through the beginning of 1974 featured a three part article called *Alternatives to Agribusiness*. A passage from the article is presented here in order to provide a sense of the attitudes that BTTL OGM farmers held toward industrial agriculture:

> …Not only do the promoters of agribusiness unconsciously reflect the American myth of progress through productivity, they are also consciously reflecting some very serious political and economic factors. The formulation of new federal policies relative to agricultural productivity will affect us all… It is ironic that agricultural productivity should be encouraged for economic reasons when American agribusiness is the most inefficient system of production in the world. This has to be emphasized because we have been living with the lie of agricultural efficiency for so long that we have begun to believe it. But it is inefficient. Some of its costs have not yet been counted. The costs pollution are externalized into the environment. The cost of social dislocation as poor farmers were driven from the land is paid by welfare agencies. The loss of farming as a way of life and of peasantry living close to the land is incalculable. But the energy costs of agribusiness can be and have been quantified…

Similar critiques continue throughout the OGM newsletters for years. For example, an article in the May 1997 issue of the newsletter discusses concentration among large chemical manufacturers, and the concerns this raises regarding their political power.

Contemporary first generation organic farmers express their opposition to conventional farming in different ways. More than one interview subject was blatantly

hostile toward conventional farming and the use of chemical inputs. Billy is probably the most vehement. Talking about conventional farmers who have inherited land, he says:

> I look at it like, we're doing it and we started out with a shovel so you can't tell me these people that already have farms handed out to 'em that are farming can't convert to organic or do something better. Any idiot, *Any idiot*, it takes *zero* skill level to do what's going on in conventional agriculture right now. It takes *ze-ro* skill level. None. It's – 'we'll spray this on it we'll sit on the tractor', I mean it's ridiculous… Seriously, I want to know how not to farm I go and look at near almost any damn conventional farm. They don't use cover crops, they use a mould board plough, they use every kind of fumigant, chemical, herbicide, everything that can kill you outright deader than shit they're using, guess what? I don't need to learn anything from them. They need to come over here and learn a little something from me!

Chase, who once had most of his farm either wiped out by a neighbor's choice to spray conventional herbicide on a windy day, is more philosophical, even spiritual in his discussion about inputs. "It doesn't make a lot of sense to use any of it", he says. "It doesn't seem natural in some way, you just, just because God didn't make it for us to need it, it would seem like you know I guess they say this ain't a perfect world, it's so out of balance right now, but it just seems we should be able to handle the bugs".

Other organic farmers take a practical approach to interactions with their conventional counterparts. Milo talks about his relationships in a practical way, with both a sense of camaraderie, and without distain. Still, he tries to subtly make suggestions to non-organic farmers that match his own values. His explanation of this is articulate and reflexive:

> We've been able to be on really good terms with our conventional neighbors and really kind of downplay the differences and emphasize our similarities. We're dealing with weather. We're dealing with machinery. And when it comes down to it, they're the ones that are going to be able to help you if you're stuck, or broke down, they, like I said, 95% of what we do is the same – we're coping with labor, vicissitudes of weather, the other-mindedness of machinery, that stuff that especially new farmers are

> going to have trouble with without good advice or someone to talk to. So, and people get that right away, the ones that are practical minded in their approach get it, everyone that's worked here as an intern gets that, we haven't had any big-shot high minded folks coming through here about organics – they get that it's, they're committed to it, and as committed as anybody, but not to the point of offending others about it. I mean there's a moment where you have got to take your stand, and there's little teachable moments in discussion where "this is how we [organic farmers] do it differently…

In general, however, opposition to conventional farming methods and agricultural industrialization are consistent throughout the newsletters and interviews. Some articulations are intellectual, others are more emotional, and some are spiritual. But each tends to reflect a value system that is consistent in its opposition to way in which most American agriculture is practiced.

Motivations for Becoming an Organic Farmer

In this aspect there are some significant differences between BTTL and Modern organic farmers. They are largely based on social changes that have (or haven't) taken place over time. While the basic values of organic farmers have remained consistent, the world in which these farmers operate has changed significantly over time, for reasons including, but not limited to the adoption of national certification.

One interview subject who has watched the evolution from the early BTTL movement to contemporary organic farmers suggests several reasons for this phenomenon. He describes that the BTTL movement was partly a reaction to the failure of the revolutionary movements of the 1960's. Comparing the motivations of BTTL movement adherents with modern organic beginning farmers, he states that the former was more of a "drop out" movement, and that contemporary farmers are, on the whole, much more engaged with their local communities.

He also notes that the current generation is much more market focused, though he admits that this may be partly due to the fact that markets for organic products didn't really exist during the BTTL movement. He stops short of suggesting that BTTL farmers were *more* values driven. He does, however, distinguish between the two groups based on the fact that most BTTL farmers were driven solely by values, while contemporary farmers are driven by values, they tend to be more market savvy, and look at small-scale organic farming as a legitimate way to make a living. BTTLanders, he points out, might be better described as "homesteaders" than "farmers". One important element of BTTL goals was to try to reduce your needs as much as possible, and thereby become independent of the modern economic system. While he agrees that contemporary farmers are interested in this to some extent, it is not their main impetus.

Beyond this, there was clearly a hope within the early days of the BTTL movement, that what was happening had the potential to significantly change society from one that was market driven to one that was values driven; to live in ways that did not support the environmental degradation, resource depletion, militarism, topple (or at least challenge) the market driven system, and a culture based on greed, unmitigated resource use, and competition.

There was a genuine belief that once people recognized there was a viable alternative to the unhealthy, mundane, hierarchical, disconnected, and ecological destructive life that modern society offered, a wholesale switch to a more meaningful, peaceful, self-actualized, self-reliant, society that valued nature, cooperation, and freedom would result. As Agnew (2004) puts it, "a lot of us came to the conclusion that our capitalist system was on the verge of collapse and that going to the land was tied to

survival… we back-to-the-land people really conceived of ourselves as about to win" (p.7).

Contemporary organic farmers have no such illusions. They don't see a future in which organic farming will subvert the dominant paradigm. They do seek lives that are more self-reliant, more meaningful, more fulfilling, and less sequestered. Many also see farm life as a hedge against the possibility of ecological and economic catastrophe, and see organic farming as a way to become less reliant on unsustainable resources. They aren't necessarily expecting global catastrophe imminently in the way many BTTL farmers did, but most mentioned the possibility of profound change in the future as an important reason for learning to be self sufficient.

Samuel, who started farming in 2002, is obviously committed to organic values, but struggles to explain his reasons, though he does talk about "community", "environment", and "shared ideology":

> Yeah it was just the way it was, plus it was attractive because the community of organic farmers are much different than the community of conventional farmers. There are still similar in ways, but it's just the belief structure's totally different, if people are organic they believe in, for the most part, I mean they believe in, they're really connected to nature and they hold value in the trees and the clouds and the hawk, stuff like that, that flies by. I mean that's what's important I think, things that are right in front of us, that are natural, do you know what I mean? It's hard to describe… I mean I can't imagine growing vegetables conventionally or using, you know ordering synthetics and ordering from places that you know, yeah it had to be, organics just fit into what I believed in, and belief in the environment. Like I don't believe you should put synthetic chemicals into the ground.

The first-generation organic farmers who were interviewed for this project subscribe to an ideological concept of organic farming that included a fairly consistent set of values, though these values are often expressed in unique ways. For example, Teresa

expresses her connection to the soil, and her opposition to chemical inputs based on her eco-feminist and anarchist personal, social, and political belief systems, Eco-feminism informs her connection to the earth. Her opposition to the power relationships inherent in the conventional farming system (including corporate control of inputs) is connected to anarchist politics. Chase and Leila oppose the dominance of conventional agriculture and the practices used within it (including chemical inputs and a lack of ecological diversity) based on eco-spiritual values and a non-hierarchical conception of the relationship between all living organisms.

The Role of Markets

The growth of organic and the emergence of local direct markets has been a factor in both the choice to enter and the ability of contemporary farmers to be successful. By the mid 1990's organic and local foods were among the fastest growing sectors of agriculture. Many farmers found that direct marketing, which cuts out the 'middle man', allows them to get premium prices for their produce. This does take them away from the farm and the work that needs to be done there, but interacting with customers (delivering CSA boxes or going to farmers markets) serves several purposes beyond the premium price. It helps to establish trust. It makes customers feel good about purchasing food from someone they know. It allows farmers to describe their input practices, their ideas about soil health, and other parts of their ideology and value systems to customers who are interested in engaging in such discussions. It allows them to sell their products fresh, which helps customers appreciate the difference in quality between direct market food, and food sold at supermarkets. All of these things help to build customer loyalty. In a larger sense, they also expand the organic and local farm movement by allowing food

purchasers to feel engaged with the food they are eating in a more personal and tangible way.

This is not necessarily a new phenomenon, but their proximity to Chicago was a big advantage to them in this respect. Smaller farmers markets did exist within Michigan during this period. However, other older growers remember farmers markets as "not a big draw" in the 70's and 80's. In addition, they talk about the fact that at this time organic was associated with "wormy apples and wilted lettuce".

The market for organic products has increased substantially since the early 1970's. Interview subjects recognize that the opportunities provided by increased interest in organic and the expansion of local markets are central to their ability to make a living on small farms. After affirming his commitment to organic practices on an ideological basis in a general way, Milo says:

> I think there's also maybe more of a market savvy, or willingness not to try to hold too tightly to our communist ideals, or whatever it was that gave people the impulse to live in intentional communities and go back to the land. I mean we see it as a business, I think I see my work in it as more in line with my job as a paper boy when I was 9 years old, those are the skills that inform or motivate my ability to get up in the morning and do something when no one tells you to do it, so it's kind of just an entrepreneurialism with a green bent.

In the early 1990's overworked volunteer OGM board members began to push for reorganization of OGM as a charitable organization, eligible for grant money to hire an executive director, and to broaden its constituency beyond certified organic farmers. These changes were resisted by several chapters of the organization. Rather than fighting, in 1991, proponents formed a non-profit organization called the Michigan Organic Advancement Project (MOGAP). The organization worked closely with OGM, focusing

on different issues including urban agriculture and promoting alternative marketing strategies such as community supported agriculture and the development of farmers markets.

In 1992, MOGAP changed its name to Michigan Organic Food and Farm Alliance (MOFFA) to reflect a broader agenda emphasizing local food, community development, and building connections between organic growers and consumers. For Connor, one of the founders of the organization, this was important because "the organic battle had basically been won" (Personal Communication, 2006). Educating eaters about the environmental, economic, and community benefits of buying 'local' organic food was a central focus. As concerns about 'food miles', input substitution, and industrial organic farming emerged following implementation of the NOP, these issues began to resonate more strongly among both small producers and consumers.

MOGAP/MOFFA and OGM worked closely together through the years, though with somewhat different agendas and roles. MOFFA still exists, and continues to promote local food systems, the political interests of small-scale organic farmers, and the development of markets for locally grown organic food.

It is impossible to untangle the motivations for individual actions such as setting up a farmers marked. But the efforts of OGM and MOFFA to promote the benefits of local food, establish connections between growers and eaters, and develop markets for local food products have undoubtedly been important in the development of opportunities for small, organic, and first-generation farmers.

Conclusions

Overview

Organic farming was not new in the early 1970's, but the BTTL farmers who embraced it brought organic farming to the present day as an economically viable and socially accepted alternative to "conventional" farming. This paper investigates the evolution of the ideologies and values of small-scale organic farmers, beginning in the 1970s, and continuing into the late 2000's. It describes the way in which the ideological framing of issues such as soil health, agricultural inputs, and organic certification were debated, negotiated, and influenced by OGM members, and how they are perceived by contemporary organic first-generation farmers. It also analyzes the way in which the opportunities, ideologies, and practices of modern organic farmers have been affected by the work of their predecessors.

Small-scale, diverse, organic farming requires hard work, sacrifice and risk, and a broad set of skills. Significant financial gains are neither guaranteed nor expected. Small-scale farming for those committed to it tends to be an all-encompassing endeavor in which work is never done, just prioritized. Most of the farmers interviewed for this paper, as well as the OGM members who pursued farming in earnest, lived on the land they cultivated. It is no coincidence that Scott and Helen Nearing, who were arguably the most influential individuals for those who chose to go back-to-the-land entitled their books *Living the Good Life*, and *Continuing the Good Life* (Nearing and Nearing 1989 (1970,1979)). Those who engage in small-scale organic farming chose a 'lifestyle' as much as a profession. This choice was based on their personal values, and the ideological aspects of organic farming fit well with their beliefs.

In the 1970's OGM started out as an organization very much committed to BTTL values and ideals. Its members were looking for a meaningful way to live, and were committed to promoting and sharing ideas about organic production and philosophy. By the 1980's many of the core members had left the organization, at a time in which farming was becoming a very difficult way to make a living, and in which many BTTL proponents were realizing that 'the simple life' was physically challenging and emotionally draining (Agnew 2004). The farmers who stayed were committed to a values-based way of living that was difficult, but worthwhile to them. By the 1990's the organization and its members were realizing that their sacrifices were making a difference. With the implementation of the NOP in the 2002's the organization was focusing all of its energy on making organic certification viable for small-scale farmers. It eventually failed because of this commitment. At the same time, it allowed many beginning farmers a way to make become certified without paying exorbitant prices, gave many a basis for both the practices and ideals that allowed them to practice organic small-scale farming in a way that was economically viable. The later generation, as the next section will show, generally agrees with the ideological principles formulated by the earliest members of OGM. They have also benefited from the sacrifices and strides that were made by OGM members over the years in developing the legitimacy and market for organic.

Ideology and Values

The motivations of both BTTL farmers and the small-scale first-generation farmers of today are based on values. These organic farmers all committed to an ideology that has evolved over time with respect to its practice and rules. Their personal values,

however, can be seen as remarkably consistent. A commitment to environmental stewardship, creating a better world, to growing healthy, wholesome food for their families and communities, finding a meaningful and fulfilling form of work, and hedging against the possibility of economic or ecological collapse are all consistent manifestations of the value systems held by small-scale organic farmers spanning four decades. Ideological issues, and the reasons for farming organically are no longer articulated as vehemently, but these practitioners retain the basic elements that organic farming has been based upon since its inception. Today, just as in the 1970's, organic adherents eschew toxic inputs and work to build healthy 'living' soils, as well as healthy, autonomous lifestyles that are meaningful, fulfilling, and appropriate to their value systems.

Paradigm Shift

One of the most important ideological shifts is related to the motivations and expectations of small-scale organic farmers. The potential for organic agriculture and alternative ways of living to topple the conventional paradigm is no longer considered likely. The BTTL movement, which so many people either engaged in or supported during the early 1970's, included a sense that such change was possible, perhaps even inevitable (Agnew 2004). People believed that the alternative lifestyles they were practicing in autonomous communities and on independent homesteads could demonstrate that a more meaningful, harmonious, and simple way of living was practical, logical, and preferable to engaging in mainstream culture or agriculture. They felt that by adopting modes of living and methods of food production that emphasized self-reliance simplicity, environmental stewardship, and community, they were providing a viable

template for changing the dominant culture of consumerism, militarism, greed, competition, and environmental recklessness (Agnew 2004; Jacob 1997; Kaufman 1972a).

The small scale, first-generation farmers of today are far more pragmatic, and in many ways, much more cynical. Their efforts seem to be universally aimed at creating healthier and more meaningful lifestyles for themselves and their families. Most are committed to a way of living that contributes to their community that limits their own participation in environmental degradation and eschews typical forms or materialism. A number of interview subjects have also admitted that their lifestyle choices are, at least in part, an effort to prepare for dealing with the possibility of economic and/or ecological and/or economic dysfunction based on the promotion of political and economic systems that include federal allocation of money for agriculture typically reward power, rather than the common good. They do not, however, tend to subscribe to the notion that their lifestyle choices and those of others like them are likely to create dramatic and widespread cultural and social change in the near future.

Incremental Change

Part of this cynicism, if we choose to call it that, is related to the history of American agriculture. Those employed in this field are now less than 2% of the U.S. population, and the failure of populist agricultural movements in the late 1800's when far more people were employed in the field does not bode well for the prospects of farmers to demand meaningful social change. This reality, coupled with the fact that most agricultural production takes place on a small number of very large farms supported by and limited to the purchase of seed and inputs from just a few companies who control the

market, and wield significant political power, does not bode well for change through the political system. Grassroots campaigns and organizations like OGM and MOFFA have quite successful mobilizing gathering support for political initiatives, and convincing the public that organic and local products are not only preferable, but also more valuable. This has been a slow process and incremental process that has required constant attention and commitment. OGM worked to promote organic agriculture and products for over 30 years. There have been substantial gains in the demand for organic products, and even some federal funding for organic research and other programs. Unfortunately, this increase has been accompanied by cooptation of organic ideology based on the development of federal rules that primarily recognize and reward the system based on economic proficiency. As a result, the bulk of organic production has come to mimic the industrial production system it was built as alternative to. On the other hand, some of the most outspoken and dedicated advocates of organic agriculture remain committed to the values that it has long held.

Economics

BTTL farmers and small-scale, first-generation organic, farmers share many basic values. One of the most important and obvious is sacrifice and commitment to hard work that is unlikely to provide substantial wealth. Both the OGM newsletters and interviews with contemporary organic farmers suggest that sacrifice, altruism, and self-reliance are fundamental to small-scale organic farmers share. Post-materialist values are central to their choice of lifestyles and livelihoods. On the other hand economic solvency is required to keep farm operations functioning. BTTL farmers were azlmost universally committed to reducing their need for money by becoming as self-reliant as possible

through reducing their monetary needs, and providing as many basic needs as possible for themselves. The newsletters and interviews suggest that this remains an important part of the value system that most modern small-scale organic farmers subscribe to as well. It does not, however, seem to hold the same level of importance for most of these farmers, nor do they tend to identify it among their motivations to the same extent that BTTL practitioners did. Part of this may be a function of land prices and availability.

Interview subjects were almost exclusively focused on accruing capitol through their farming operations, and spent much of their time developing their markets and selling their products. Interviews almost always included a discussion of the economic strategies individuals had used to become farmers, and those they are using to maintain and build their operations. A major difference between many BTTL farmers and contemporary first-generation farmers is that making a living through emerging markets generally requires that a farm be located near a population center.

In the period between the BTTL movement and the emergence of interest in farming among the current generation, farmland prices have increased drastically. In addition, an increased demand has been placed on farmland and rural property, especially that within a reasonable distance from population centers, introducing even another factor that increases property value and demand. Urban sprawl, competition with wealthy individuals or retirees who are interested in country living or having a second home there, increased commodity prices, a large increase in the number of "hobby farmers: and the need for conventional farmers to expand their operations in order to survive have all driven substantial increases in farmland price, and substantial decreases in its availability. This has meant that for modern farmers, simply decreasing their cost of living and

becoming more self-sufficient (as BTTL farmers did with limited success) is inadequate to pay mortgage or rent, or to acquire the equipment needed to farm successfully.

A second issue is that both the demand and the availability of markets for organic products have grown significantly since the BTTL era. The newsletters indicate that OGM farmers were generally selling their organic products to conventional market outlets. Because these farmers were still refining organic practices, there were often quality issues that made it difficult for them to compete with the "picture perfect" produce being supplied by conventional farmers with an arsenal of pesticides and chemical fertilizers at their disposal. Conventional markets also tend to require substantial amounts of products delivered on a schedule. The small-scale organic farmers within OGM often lacked the capacity to do this, which made finding markets for their products even more challenging.

The growth of "direct marketing" and the increase in demand for organic and local products over the years has changed this situation dramatically. Most small-scale organic farmers are now selling directly to consumers through farmers markets, "community supported agriculture", and arrangements with restaurants, food co-op's, and health food stores. The internet has made it much easier for growers and consumers to connect, and is now providing yet another outlet for direct sales. These developments have allowed small farmers to find markets for a variety of products grown in limited quantities throughout the season. Product diversity has provided farmers with a hedge against crop failure and has increased demand for unusual high value products. Direct marketing allows farmers to retain the full price of their products, rather than selling them

wholesale. Price premiums for organic and local products have become commonplace as well, since customers are willing to pay more for fresh organic food.

These factors have combined to provide contemporary farmers with more marketing options, greater market security, and the ability to make substantially more income from their small acreages. The development of local markets and the acceptance of organic agriculture that facilitated these changes are part of larger national trends. However, as the analysis of OGM describes, this group played a key role in promoting both of these developments in Michigan and beyond. OGM worked hard to define organic, develop organic standards, and promote public awareness of the advantages of organic farming. Members of the organization also made significant efforts to promote the practices that made organic farming more practical, efficient, and competitive through information sharing, public education, their own research and observations, and by lobbying for institutional organic research. The commitment and tenacity of organic farmers over time helped to facilitate cooperative marketing, advertising, and lobbying efforts aimed at building the local farming movement. While the heavy lifting in this area eventually fell to MOFFA, the two organizations worked closely together and both their leadership and membership had significant overlap. It is important, again, to note that no single event, no piece of legislation, and no outside organization was as important as the daily work that OGM and organizations like it performed over a period of decades, beginning with the BTTL farmers of the early 1970's.

Staying on the Land

The result of these efforts makes it much more likely that small-scale, first-generation, organic farmers who manage to make it into the agriculture profession will be

able to stay "on the land". The development of new marketing opportunities based on recognition of their efforts and their products provides economic security that BTTL farmers did not have. Once established, their opportunity structure, having been bolstered by consumer interest in organic and local food, is much higher than that of BTTL farmers. The growth of interest in organic and local food shows no signs of waning, and may become even more necessary as resources become increasingly scarce and transportation costs become higher. Finally, their practical approach to farming, their understanding of farming methods and the realities of rural life is a contrast to the utopian vision held by many BTTL farmers. This makes it far more likely that they will not abandon their farming lifestyles due to burnout or disillusionment.

Summary

Today, a new generation of small-scale organic farmers is building on the foundations developed by the BTTL movement. The acceptance of organic as a viable alternative, and the ascendance of direct markets through the local farming movement are a legacy of the BTTL movement, and the reason that many beginning small-scale farmers are able to enter and succeed today.

The ideology and values of contemporary first-generation farmers are part of a social movement continuum that has emerged as a significant critique and alternative to conventional agriculture over the past century. When we consider the future of farming, it is typically the triumph of technology and the potential for industrialization to feed a growing population that is emphasized. Modern small-scale first-generation organic farmers are challenging longstanding questions about the sustainability of the dominant agricultural paradigm. They are also continuing a social movement legacy offering

alternative ways of farming which have surfaced several times over the past century and more.

By detailing the step-by-step history of the development of organic farming from the back to the land movement through the contemporary era, this paper shows the continuity between generations, and the continued legacy of the BTTL movement. Many small farmers who are growing today were inspired by the BTTL growers of the 1970's, and owe much to those who fought for the legitimacy of organic and small-scale agriculture. This paper also explains that although specific events affected the organization and opportunity structure for small-scale organic farmers, their basic values have remained relatively consistent over the years.

APPENDICES

APPENDIX 1 RESEARCH SUBJECTS

Table 3. A List of research subjects containing specific attributes related to the history of each subject, their participation in organic certification at the time of the interviews, and the number of interviews conducted with each.

Name (Pseudonym)	Year Started	Previous Profession	'Certified' Organic	# of interviews
Connor	1967	Professor	Was (now retired)	4
Tom and Lorna	1973	Auto Worker/Mother	Yes	1
Brent and Mary	1983	Auto Workers	No	1
Nina	1985	Machinist	Yes	1
Chase and Leila	1987	Wanderers	No	2
Anne	1992	Mother	Yes	1
Gilbert	1993	Construction	Yes	2
Milo and Sabine	2000	Students/Food Co-op employees	Yes	5
Billy and Ren	1994	Service Workers	Yes	2
Dirk and Jenna	2002	Extension/Professional Athlete	No	1
Samuel	2002	Military	Yes	1
Teresa	2005	Student/Activist	Yes	1
Brenda	2007	Student	Yes	1
Lola	2007	Teacher	No	1
Shelby	2007	Graduate Student	No	1

APPENDIX 2 ORGANIC GROWERS OF MICHIGAN CODES

Table 4. Codes and concepts used in analyzing pertinent elements of OGM newsletter articles. (*These were coded separately within the analysis of the OGM articles, but for the purposes of this paper, are considered together since both refer to related concepts in the analysis used in this study.)

Code/Concept	Definition	Rule	Example
Philosophy	Philosophical issues related ideology involved in the practice of organic agriculture, values, or components of the alternative agricultural systems and lifestyles that are or were important to OGM members	A newsletter item referring to discussions, activities or issues important to one or more OGM members which have a philosophical, ideological, or values based components are presented in a newsletter item.	"A permanent agriculture cannot be established until we change our attitudes of the soil as an instrument of short-term profit and a resource to be squandered..."
Certification	The certification of a farm or farm products as "organic" by OGM another organization or institutional body	Refers to the mention of "organic certification", discussion of its importance/relevance, or the rules and processes by which it is determined or applied or applied to an organic farm or farm product by OGM or any other institutional body.	"Crops change, conditions, change, situations change. We feel that an annual update is desirable to help provide credibility to our OGM Certification Program."
Standards	Organic practices, allowed inputs, and rules used in the process of organic certification and/or the harmonizing certification rules by a government body or other legally recognized rulemaking entity	Refers to the discussion, debate, acceptance, or critique of the rules or rulemaking processes, and allowed/disallowed practices, and inputs involved organic certification. Also refers to discussion of, or involvement with the development and/or application of certification rules by a government body or other legally recognized rulemaking institution or entity.	"OGM won't even meet the Fed Guidelines in some areas. There are gaps and OGM seeds to fill in the gaps in order for the organization to comply with Federal Standards."
Marketing	Challenges,	When a newsletter article	"…food cooperatives

Table 4 (cont'd)

Code/Concept	Definition	Rule	Example
	opportunities, or choices related to marketing organic and local products that affect the economic solvency of OGM farmers either positively or negatively	discusses the economic opportunities, realities, or strategies involved in selling organic/local farm products or the ways in which markets for organic/local products are being influenced or changed.	are interested in getting [organic] food for their areas locally if possible. Due to the number of cooperatives there are supply problems."
Science	Research on organic farming and/or organic food products conducted either through institutions or by individuals	When a newsletter article discusses the lack of, need for, or prevalence of organic research; the responsibility of research institutions or ability of individuals to perform organic research; or the results of research or personal experience related to organic farming.	"September's meeting of OGM's Southwestern chapter will focus on soils—testing, recommendations for bringing nutrients into balance, and soil conserving practices."
Education/ Outreach*	Attempts to educate the public or other farmers about organic food, farming practices or other issues; attempts to expand membership	When a newsletter item mentions educational programs directed at the general public, at farmers who might consider converting to organic; or mentions efforts to expand organization membership	"On Tues., Nov, 25, 7:00pm the first in a series of programs co-sponsored by OGM-S.W. and the Van Buren County Cooperative Extension Service will take place."
Politics	Legislation or rulemaking related to organic farming, pesticides, small farms, of concern to OGM members.	When a newsletter item refers to political or legislative issues, actions, or events that are related to organic agriculture or of concern to members of OGM in any way.	"The organic farming act of 1982 was sidetracked, but not killed, by a relatively close vote of 189 to 198 in the U.S. House"
Activism	Action by organization members to influence political outcomes	When a newsletter discusses or recommends political or personal action aimed at influencing legislation or rules.	"As concerned organic growers, we have an obligation to sound off to the FAA and EPA."
Trends	Cultural, political, or social, changes affecting OGM,	When a newsletter item refers to cultural, political, or social changes that have relevance	"The product of these whirlwind discussions was general

Table 4 (cont'd)

Code/Concept	Definition	Rule	Example
	its members, or issues of common importance; or changes in the structure, health, or direction of the organization	to organic farming or other issues of importance to OGM members; or when an item talks about membership, meeting attendance, organizational structure, or other changes with regard to the organization.	agreement among the representatives of the organic farming groups in the United States and the achievement of a united front in the industry."
Environment	Attitudes about the environment or nature that affect the decision to farm, inform production and marketing practices, influence other lifestyle choices, or reflect ideas about ecology or nature	When a newsletter item includes a comment, observation, or inference related to issues regarding personal or societal relationships with nature or environmental subjects including, pesticides, peak oil, global warming, erosion, etc.	"If the 'greenhouse effect' doesn't turn us into a tropical mess, the nuc's[sic] on Lake Michigan blow… what's to keep the family farm from being gobbled up by agribusiness?"

APPENDIX 3 INTERVIEW CODES

Table 5. Codes and concepts used in analyzing pertinent elements of interviews with farmers.

Code	Concept	Definition	Rule	Example
Phil	Ideology, Values, Belief Systems and Worldviews	The ideological and philosophical content of farmers' practices or beliefs, and their personal values.	When philosophical, ideological, spiritual, political, social, environmental, cultural or other values based concepts are mentioned by an interview subject.	"I think all beings are connected to the earth no matter what their gender. But I do recognize that women have more of a role in many communities, in many cultures, of caring for the earth."
Soil	Soil as the basis for healthy, productive organic agriculture	The idea that healthy living soils and organic soil inputs are essential plant health, productivity, agricultural health, and human/animal health.	When a comment or observation by an interview subject refers to soil as the essential starting point for organic/healthy/productive crops or organic farms.	" …a lot of things about cropping, and soils, and fertility you could read 10 times in the kind of major works of the organic movement but you still don't get it until you see it work."
AI	Agricultural Inputs	Discussion of fertilizers, pesticides, compost, and other farm inputs.	When a subject mentions the use and/or appropriateness of inputs on their farm, on organic farms in general, on conventional farms; or when a subject mentions the potential of inputs to affect their farming system, the environment, or human health .	"I don't believe you should put synthetic chemicals into the ground. I mean I think that's so contradictory to what mother nature had planned for everybody or, you know,

Table 5 (cont'd)

Code	Concept	Definition	Rule	Example
				what's real."
Mkt	Marketing of Farm Products	Challenges, opportunities, or choices related to marketing organic local and other farm products or services that affect the economic solvency of farmers either positively or negatively.	When a subject discusses the economic choices, difficulties, strategies, customer relations, or prices, involved in selling their farm products and/or services	"…[Milo and Sabine] have done a really good job of getting to know markets, whether it's restaurants, or you know, the whole CSA thing."
Cert	Organic Certification and Standards	The process of certifying organic farms, including: allowed inputs, rulemaking, inspections, cost; and perceived benefits/drawbacks of this processes.	When an interview subject refers to the development, rules, implementation, necessity, politics, experiences with, or effects of the certification process; or when they refer to the standards for organic certification.	"We used to know the people growing the food maybe, and just had the relationship, and now it's like at the store you want pure food, you want organic food, so you have to have this third-party verification…"
Sac	Sacrifice	Giving up other opportunities, financial or otherwise in order to pursue farm live.	When a subject makes a comment or observation related to personal sacrifices or those made by farmers in general in order to enter or maintain the farm business, or to live/work as a farmer.	" Of course I made more money as a bartender, as a day bartender in the 80's than I do right now but…I'd rather be outside."
P&A	Politics and Activism	Political opinions, activism, outreach, partnership or other interactions with governing institutions	When a subject comments about political activism through letters, email, phone calls, testimony to a public official.	"I actually thought 'oh my god maybe they don't realize' what implications this could have to

Table 5 (cont'd)

Code	Concept	Definition	Rule	Example
				me, and if somebody went and told them 'hey, this could hurt me, and if it doesn't hurt me it could hurt other people' Maybe it would invoke a change"
Sim	Similarities	The overlapping elements related to motivation, practice, ideology, values, opinions, experiences, goals, etc. between BTTL and modern farmers	When comments or observations from interview subjects explicitly reflect or infer similarities in values, goals, practices, or experiences between "back to the land" movement farmers and the small-scale first-generation organic farmers of today.	"…so you have the same pattern of disillusionment with the larger world and seeking a better life and…maybe changing things thereby…"
Dif	Differences	The divergent elements related to motivation, practice, ideology, values, opinions, experiences, goals, etc. between BTTL and modern farmers	When comments or observations from interview subjects explicitly reflect or infer differences in values, goals, practices, or experiences between "back to the land" movement farmers and the small-scale first-generation organic farmers of today.	"I think there's also maybe more of a market savvy, or willingness not to try to hold too tightly to our communist ideals or whatever it was that gave people the impulse to live in intentional communities."
Com	Social interactions with community members and other individuals	Non-commercial interaction with customers at farmer's markets or on the farm; interactions with interns, other farmers, mechanics, employees,	When a subject talks about their interaction with other individuals in the community about what they are doing and why, or how they might mutually aid one another.	"Most of the people who come we haven't had the problematic stuff of like over-idealistic people, we've really had

Table 5 (cont'd)

Code	Concept	Definition	Rule	Example
		neighbors, etc.		mostly people coming from a working class background that see this as an opportunity to move ahead, maybe learning a trade or something."

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CONCLUSION

Summary

The United States is currently facing an agricultural crisis. The farm population is rapidly aging, and actively shrinking. Fewer young farmers are entering the occupation each year, and many of those who do are often taking over large family farms that continue to increase in size. It is unreasonable to expect these trends to abate unless first-generation begin to enter the profession in large numbers. The recent increase in the number of individuals without a farm background who are interested in entering the profession is an encouraging sign. Unfortunately, they often face substantial impediments to doing so. The three papers presented here discuss a number of issues and ideas related to first-generation farmers. Together they explore the barriers to new farmer entry; tell the stories of successful first-generation farmers; explore the motivations and learning processes of these farmers; and describe the historical development of ideology and practices that have provided opportunities for first-generation farmers.

Identifying the barriers to new farmer entry represents an important first step toward addressing the underlying challenges that first-generation beginning farmers face. Farming is both an occupation and a lifestyle. Although it is fairly easy to find work on a farm, it seldom represents steady, reliable employment that meets the basic needs of wage earners. The first paper in this dissertation shows that lack of capitol is by far the biggest impediment to new farmer entry, followed by the related issue of access to land. As interview subjects in crop growing regions pointed out, even multi-generation farmers often struggle to acquire family farms due to their large size, the high price of farmland,

inability to "buy out" their siblings in cases of inheritance, and the fact that farm equity often represents their parents' default pension.

Barriers to farm ownership are often even more acute for first-generation farmers, who lack the possibility of either inheriting farmland, or renting land from a parent or close relative. Banks, Farm Credit Corporations, and even the Farm Service Agency (FSA), which administers the federal "Beginning Farmer Loan Program", are typically unwilling or unable to evaluate the viability of business plans for small-scale multi-crop farms using direct sales in a variety of markets. Lack of farm management experience tends to make lenders nervous as well. In areas outside of urban centers, where the most potential for direct marketing exists, land prices are often driven up by urban sprawl and wealthy individuals who want country homes, and can obtain capital or loans more quickly than potential farmers.

Policies and programs that help first-generation farmers are badly needed. They are beginning to emerge in the form of "microloans", farm incubator programs, state programs that offer tax incentives for the sale of agricultural land to beginning farmers, federal beginning farmer lending programs, and a "land contract guarantee" program. Business training programs for farmers are helping to deal with a third barrier also related to capital, since viable business plans are essential for both procuring loans and for making new farms successful. These programs and policies are currently far too limited to turn around the worrisome trend of declining new farmer entry. They do, however, represent a step in the right direction. They simply need to be scaled up vastly and quickly in order to make a significant impact over the short term.

The second paper, which presents the in-depth stories of four "successful" first-generation farm families, offers insights into the strategies that full-time first generation farmers have used to start and grow their farms. It explores their learning processes, their motivations, and presents a candid look at the struggles they have faced and how they have managed to overcome, or at least ameliorate them.

Each of these farmers started out small, and grew their operations gradually, which has been one important key to their success. Both Gilbert and Barb and Milo and Ren relied on capital from off-farm work in order to establish their farms. The latter couple has also relied heavily on government loans to finance their farm, which is significantly larger and more mechanized. They have spoken about the difficulty they had in procuring these loans because their farming model did not fit into the FSA "box" (as mentioned above). But their persistence, one particularly sympathetic FSA agent and eventually their equity and experience allowed them to take advantage of these programs. Chase and Leila's farm was purchased at auction during the "farm crisis" of the 1980's, and was cheap enough that Chase was able to pay cash for it. The entire farm, which was twice the size at the time cost less than an acre of poor farmland would fetch today. Because they have no mortgage, no machinery, and live a very frugal, self-sufficient lifestyle, they've managed to gradually build their farm into an economically viable operation. They still live very simply, but did take winter trips to Arizona and Costa Rica with their daughters in back to back years. Sabine and Milo began by managing a farm for someone, had a small CSA, then rented acreage in order to produce enough to come up with the down payment on their land contract. They were lucky to find a retiring farmer who was interested in passing his land on to the next generation, but that doesn't mean

they got a deal. Their "deal" was the land contract arrangement that precluded the necessity of applying for loan money.

Each of these farms looks very different, and functions in unique ways. There are similarities between them, but like their means of entry, they have all found unique personal ways of farming, just like they all found different ways of acquiring their farms. Among even this very small sample of farmers, it is clear that there is no one "right way" to acquire a farm and develop a successful operation. It is also significant that none of these farmers had any formal training in agriculture or business. Milo spent a summer as an apprentice on a small organic farm, Billy ran a couple of businesses before entering farming, and Sabine managed a food coop. None of them ever participated in any formal farming or business training programs, however.

It is unlikely that Chase and Leila or Gilbert and Barb would have qualified for loans to start their farms. Billy and Ren were only able to procure loans after substantial effort and were already running a farm at the time. Milo and Sabine might have qualified for loans, and have taken advantage of several Farm Bill programs (through the Natural Resource Conservation Service) since they had experience farming, but to procure their farm they still would have had to come up with the down payment that they managed to achieve through crop production. Each of these farmers managed to establish themselves through a combination of luck, savvy, tenacity, and self-motivation. This does not mean that farm loan programs or farm training programs are unimportant. It simply means that there are other ways for first generation farmers to become established.

The third paper explores the historical evolution of organic ideology and the way in which it has affected the opportunity structure of modern small-scale first-generation

farmers. These farmers exist in a world that is quite different both culturally and economically from the one in which the back-to-the-land (BTTL) movement farmers who ignited the modern organic food movement lived. It is not easy to find cheap farmland today for reasons that are mentioned above. BTTL movement farmers and homesteaders were often able to survive simply by living a subsistence lifestyle that made their capital needs relatively small. This is not the case for modern farmers. Even a relatively small farm can cost several hundreds of thousands of dollars. This puts those who can acquire the means for purchasing one in a position where making money is a necessity. Fortunately, the organizations and individuals who started this movement were hard at work over many years establishing the legitimacy of organic agriculture and building a local food economy.

Policy and Program Recommendations Overview

The first paper clearly shows that lack of capital and difficulty obtaining land are the primary barriers facing beginning and aspiring farmers. The second paper shows that starting small and scaling up is a strategy that can work for first-generation farmers. Both the second and third papers suggest that for small-scale farmers, organic farming, and direct marketing are strategies that first-generation farmers can employ to maximize income, and facilitate the start-up process.

Based on this knowledge, policy and program recommendations are presented here. This research has shown that the skills, motivations, knowledge, and capital resources of aspiring and beginning farmers are not ubiquitous. There are different ways for first-generation farmers to succeed in establishing and developing their farms. Therefore, the recommendations are not presented in order of importance. Some may be

more useful to particular individuals than others. Dealing with the primary issues of capital and land, however, are the main focus of these recommendations.

The following programs exist, or have existed in the past, but must be expanded in order to help more than a small number of farmers. They also need to be better publicized, especially in the case of federal programs in order to be successfully and fully implemented, and easily understood and accessed by beginning farmers.

Addressing Beginning Farmers Needs for Capital and Land

Microloan Programs

First-generation farmers are often successful when they start small then scale up, and therefore do not necessarily need huge loans in order to be successful. Several organizations such as The Carrot Project[44] have initiated microloan programs that provide first-generation farmers with the ability to begin farm operations they can grow over time through small loans with reasonable interest rates. Such programs can provide startup money for aspiring farmers to help with land rents, down payments, equipment, and infrastructure purchases. They can also help active farmers to grow their operations and make them more economically sustainable. A 2011 marker bill[45] introduced by Sen. Harkin of Iowa and Rep. Walz of Minnesota H.R. 1727 / S. 837 included authorization of a new category within the USDA Direct Operating Loan Program for microloans of up to

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[44] See http://thecarrotproject.org/financing.

[45] A marker bill is a bill introduced in the House or Senate that is never expected to be passed by a Committee and come to a floor vote within either chamber, but sets the stage for elements of larger bills or the introduction of future bills. they also explore and establish support among members of each body for support of future legislation. Marker bills related to beginning farmers and ranchers provide a template for the content of beginning farmer and rancher programs within the farm bill.

$35,000 with incentives for young, beginning, and veteran farmers that include lower interest rates. The failure of congress to pass a farm bill in 2012 has put even the possibility of such a program on hold indefinitely.

Savings-Match Programs

These programs, also referred to as individual development accounts (IDA's) match dollars that farmers put into accounts to be used for investment in farms, and have often focused on aspiring and beginning farmers. These programs tend to serve the same purpose as microloan programs, but allow farmers investment capitol that they don't have to pay back. They can also encourage aspiring farmers to save money specifically for starting in farm operations. They typically require recipients to participate in financial training programs. A federal program[46], passed in the 2008 farm bill authorized $25 million for farmers to invest up to $3,000 in a 2:1 government to individual match program[47]. However, the program was never actually funded. Nascent farmer IDA programs exist in California and Michigan, and have been extremely successful for those few farmers who have been able to take advantage of them. The federal IDA program should be reauthorized in the next farm bill so that it can actually be implemented. IDA programs could constitute a productive way for non-profit organizations or individual philanthropists to assure that their investments are utilized productively, since they require both investment by the farmers themselves and often include financial and business management training.

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[46] The Beginning Farmer and Rancher Individual Development Account program (BFRIDA)

[47] See http://cfed.org/assets/documents/policy/BFRIDA_5_28_09.pdf

Farm Ownership and Operating Loans

The federal Direct Farm Ownership (DO) and Farm Operating (FO) Loan Programs both have "set-asides"[48] specifically for beginning farmers[49] who are unable to obtain loans from commercial lenders. These programs are implemented through FSA and provide loans of up to $300,000. In order to qualify for these loans, beginning farmers must show that they have applied for loans through commercial lenders and have not been approved. There is also a requirement for DO loans that farmers have been the "principal operator" of a farm for at least 3 years. This is a major limitation for many beginning farmers. It is recommended that this requirement be reduced to 2 years and further loosened legislatively to include educational experience through approved beginning farmer training and business planning programs and/or employment or internship experience that includes participation in farm management and business planning decisions. It is also recommended that the $300,000 limit be increased to compensate for inflation and rising farmland prices.

The FSA also manages Guaranteed Farm Ownership and Farm Operating Loan Programs with beginning farmer set-asides. These programs provide a guarantee to commercial lenders or Farm Credit Service lenders that FSA will cover up to 95% of a farm loan in the case of default. This offers security to lenders who might otherwise be reluctant to provide farm loans. Like the Ownership and Operating Loan Programs, eligibility is dependent on proof that the individual or entity cannot get loans through

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[48] A beginning farmer set aside refers to legislative requirements that a certain portion of program money be allocated specifically to beginning farmers. In the case of DO loans, the beginning farmer set aside is 70%, and for operating loans, the set aside for beginning farmers is 50%.

[49] USDA defines a "Beginning Farmer" as someone who has not operated a farm for more than 10 years.

conventional sources without such a guarantee. The maximum loan amount under this program is currently $1,355,000 and is adjusted annually for inflation.

Other federal loan programs and incentives.

A federal FSA Down Payment Loan Program also assists with purchasing farms and farmland. This program is targeted specifically to beginning and socially disadvantaged farmers. Farmers are required to pay a 5% down payment. FSA then provides up to 45% toward the purchase price with the loan amount capped at $225,000.

The Joint Financing Arrangement is an FSA administered loan program for farm purchases that does not require beginning farmers to make a down payment. Instead, FSA provides up to 50% to financing the land purchase, and another lender provides the other 50% or more. Interest rates are the same as those for DO loans.

Through the Land Contract Guarantee Program, FSA provides a "Prompt Payment Guarantee" up to the amount of three amortized annual installments along with tax, real estate transaction, and insurance costs. Through the "Standard Guarantee" FSA accepts responsibility for 90% of the outstanding principal balance under the land contract. Farmers must make at least a 5% down payment.

Farm Credit Service Beginning Farmer Loan Program.

Farm Credit Services of America offers a loan program for young (those under the age of 35) and beginning farmer loan program. These loans can be used for land purchases, insurance, or farm operating costs. The program also includes reimbursement for business planning classes, and offers college scholarships.

Recommendations for changes to beginning farmer loan programs.

Funding for beginning farmer loan programs should be significantly increased. Beginning farmer loan programs represent a tiny fraction of the federal agriculture budget. The fact that they are *loan* programs, not grants, direct payments, price subsidies, or federal insurance programs means that the majority of money allocated to them will actually be repaid with interest.

It is recommended that interest rates for each of the federal loan programs be decreased significantly for beginning farmers in order to reflect low current federal rates, and to provide incentives for their participation in these programs.

It is recommended that any individual or entity selling farmland to beginning farmers at fair market price be exempt from paying capital gains tax on this sale. A tax credit should also be given to beginning farmers based on farmland purchase price. State programs that implement these types of incentives have already been established in both Nebraska and Iowa. In addition, both of these recommendations were part of the Obama/Biden campaign platform in the 2008 presidential campaign. Such rules could provide strong incentives to landowners for selling to beginning farmers, and provide beginning farmers with much needed tax relief. Implementation or at least promotion of tax relief aimed at promoting agriculture would likely generate bipartisan support. These programs, however, have never been seriously considered at the federal level.

It is recommended that federal loan programs be revised to provide more support for small-scale and first-generation farmers. The term "beginning farmer" conjures images of small pastoral diversified organic farms selling vegetables in local markets. In reality, the bulk of federal loan money goes to large-scale commodity based agricultural

operations. It is unclear how many "beginning farms" are simply spinoffs of large existing farms, or based on nominal changes in ownership and/or location. The microloan and Savings Match (IDA) programs seem to be the two most likely to assist small-scale first-generation farmers who are just starting out. Neither program has ever been funded despite evidence that both of these approaches work well when implemented through the private and non-profit sector and for small startup businesses in other industries.

Loan programs cap eligibility based on the size of farms, but make no mention of the type of farms that are eligible. Confined animal feeding operations (CAFO's) can exist on relatively small acreages by packing a large number of animals into a limited space and importing feed. Provisions within the loan criteria that exclude CAFO operations from eligibility for beginning farmer loan programs or set-asides would help to assure large farms operating on relatively small acreages do not acquire funding that could be used by diversified sustainable farm operations. Alternatively, set-asides specifically directed to farms that produce a variety of crops, are organically certified, or sell a significant portion of their products through direct markets would tend to assure that more small, diversified, first-generation farmers receive beginning farmer loans.

Suggestions for better implementation of beginning farmer loan programs.

The loan process for beginning farmers can be cumbersome, and procuring federal loans is a process that often takes a great deal of time. Landowners typically wish to sell their properties as quickly as possible once they are put on the market. This means that farmers can often lose out on purchasing opportunities while waiting for loan approval. This is an especially big problem for properties on the urban fringe where beginning farmers often compete for land with individuals and companies that are better

capitalized and can procure loans more quickly. The process of procuring federal loans needs to be expedited to insure that this situation is ameliorated. One possibility for making this happen is the implementation of a pre-approval process that offers farmers or potential farmers the option of completing the loan application and approval process prior to finding land. A mechanism such as this, even if it required a small, non-refundable fee to ensure that only serious applicants would take advantage of this option would allow them to compete with well-capitalized buyers by expediting the dispersal of loan money. It would also help landowners who want to sell to beginning farmers but can't afford to wait indefinitely for FSA loan approval confidence that the potential buyer will have the money to purchase their property within a reasonable amount of time.

Federal beginning farmer loans (like any loan) require that applicants are "well qualified" and meet certain conditions. These conditions, however, are not currently standardized or well described. This means that the discretion, confidence, and motivation of individual FSA agents can play a major role in both loan approval and the time it takes for decisions to be made. In addition, many agents are unfamiliar with or daunted by the process of assessing the viability of small, diversified farm plans that involve direct market sales, often to multiple buyers. It is much easier to assess the income potential of a corn farmer, since crop, input, and land prices are relatively stable. Small, diversified farmers are more likely to require FSA loans for the same reason. Private lenders have difficulty with assessments of complex farm plans, and smaller loans can make it more difficult for them to justify taking the time to do the necessary research that complex farm plans require. These farmers are therefore more likely to be rejected

by commercial lenders, which often leaves the FSA as their only option for loan procurement.

Addressing this situation requires better assessment tools, better training, and more incentives for individual FSA agents to be able to process these kinds of loans. Developing such things will require leadership at the state or federal level. USDA support for the success of small-scale diversified farmers should include initiatives to develop better, more standardized and specialized tools that FSA agents could use to assess small, diversified farms and process their loans more quickly and efficiently. It should include better training for individual county loan agents in how to assess the qualifications of small-scale diversified farmers. The agency should be actively promoting efforts to promote the development of these farmers by emphasizing their importance. USDA, or perhaps National or State FSA offices should have trained staff that can assist county agents in learning to process loan requests from these farmers. USDA could also do a much better job of educating small, diversified farmers about how to successfully negotiate the FSA loan process. It should provide better resources for explaining beginning farmer loan options; simple yet functional tools these farmers could use to understand the application process; and a better system for directing farmers toward these resources. A special liaison or an office within USDA or FSA that offers small-scale beginning farmers direct personal support in negotiating the loan process, and an office of advocacy that these farmers could turn to for help if they feel they are being treated unfairly or need help communicating with their local FSA loan agent would be extremely useful as well.

Farmer Education and Training

The federal Beginning Farmer and Rancher Development Program is a grant program specifically oriented toward efforts focused on education, training, outreach, and mentoring a new generation of "sustainable" farmers. Program rules specify that projects must be collaborative, and limit the number of grants awarded to projects administered by public research institutions. This program is relatively new, and most BFRDP projects are multi-year. For this reason, it is difficult to evaluate its effectiveness. This program is, however, thee only federally funded grant program geared specifically to beginning farmers and ranchers.

Farmer training programs are run by non-profit organizations, private entities, and universities/colleges. According to research conducted in this study, several elements are vitally important to the success of such programs. The first is that farmer training programs have a business planning component. A number of interview subjects emphasized how crucial this element is to the success of beginning farmers. Farms are businesses. Therefore, business planning and management knowledge are essential components of successful farms. Sound business plans are also essential for the process of procuring loans. For this reason, it is recommended that all farmer training programs have a business planning component.

Another element highlighted by research subjects working in successful farmer education programs is the importance of mentorship. A number of programs actively link their participants with established farmer mentors. This allows them to develop relationships with farmers to whom they can turn for advice, and who are invested in their success. For this reason, it is recommended that all beginning farmer education

programs also have a mechanism for linking participants with capable and willing mentors.

Internships can be useful ways for aspiring farmers to gain the knowledge necessary to succeed in farming. Unfortunately, many farmers offer internships as a means of obtaining cheap labor, and are not particularly skilled or dedicated educators. There are many exceptions to this, but all good internship programs have certain commonalities. Interns can learn a lot simply by participating in the daily production activities that take place on a farm. The most effective internship programs also involve close contact with farmers themselves. It is important that interns understand why the farmers make the choices they do, and why certain activities are undertaken. It is also important that interns have the opportunity to participate in all aspects of the farm operation. This includes marketing and customer relations, equipment maintenance and repair, business planning and economic decision-making, whole farm planning that allows them to understand how the many different elements of the farm operation are integrated, and that they experience activities through an entire season. This includes everything from soil preparation and seed ordering, to seeding and planting, crop rotation, managing weeds and pests, harvesting and storage, product preparation and delivery, and the many other elements that make up successful farm management. It is recommended that individuals choose their internships carefully, that knowledge is imparted through discussion and study as well as practice, and that the farmer(s) offering the internship are committed to sharing their knowledge and decision making processes.

Other Important Program and Policy Issues

The barriers to entry identified in this dissertation strongly emphasize the importance of finding land. The link between land acquisition and financing is obvious, and the recommendations for policies and programs that facilitate capital acquisition have been discussed at length above. There are, however, several other strategies for finding land that deserve attention. Farm incubator programs are places that offer land to farm, shared resources, and generally consist of a number of farmers at different stages in their development. They are not meant to be permanent. Instead, they offer a place for farmers to get started, hone their skills, and have the opportunity to observe and interact with other farmers who are a bit more experienced and can share different strategies and kinds of knowledge. Incubator programs tend to be a great way for farmers to learn their craft before going out on their own. They often include group activities, discussions and educational programs. Most importantly, they offer a place for new farmers to get started before they are ready to invest in their own land. They tend to provide cheap or free usage of farmland, and allow new farmers to accrue the money, resources, and experience they need to start a farm of their own. Incubator programs, if well managed, are highly recommended as a means for farmers to get started, and are a good investment of resources for organizations or individuals who wish to help farmers in their early stages of development. Communities that have chosen to offer public land as a resource for incubation programs also reap the benefits of having fresh local food available to their citizens.

Farmers markets also serve multiple purposes. They provide local farmers with a place to sell their products. They serve as a social hub. They can help introduce people to

new kinds of food and learn more about where their food comes from. They also provide a source of fresh healthy food for the communities in which they are located. Often, farmers markets are held in urban areas where fresh food is not available. Many farmers markets have also begun to accept food stamps and Women, Infants, and Children (WIC) food program credits. It is strongly recommended that both private and public organizations and institutions encourage the development of farmers markets and provide the facilities and space necessary for them. Farmers markets also offer opportunities for the sale of "value added"[50] products. The federal Value Added Producer Grants Program is a competitive grants program offered by the federal government that can help farmers develop the infrastructure to produce products such as jam, pickles, pies, etc. Continuation of this program has the potential to help small farmers gain extra income from the crops they grow by expanding their markets and storing perishable products that can be sold year round.

Drought, flooding, and other kinds of catastrophic crop loss are mitigated somewhat by the diversity of products that each of the farmers interviewed within these papers produce. But such diversity also makes it much more difficult to participate in insurance programs for the same reason that their diversity makes it more difficult to procure federal loans. It is simply more difficult to evaluate the value of a number of different crops sold directly to customers. Policy mechanisms that would help with such evaluation and extend the availability of insurance to small diverse farmers would be helpful in mitigating risk. Because farms take time to establish and are often developed

[50] Value added products refer to goods that have been processed from goods produced on the farm in order to expand marketing opportunities and expand income from the crops that farmers have grown.

with loan money, one bad year can cause economic catastrophe. Large- scale commodity farmers rely heavily on federal crop insurance programs. The implementation of policies that extend these programs to small-scale diversified farmers should be developed in order to help them reduce their risk, and survive difficult years, especially in the early stages of their growth.

Recommendations for Further Research

It is generally accepted that the interest in farming among young people and individuals who didn't grow up on farms has expanded greatly in recent years. There are many anecdotal reports about individuals who fit into this category, the expansion of beginning farmer training programs, and university-based programs that promote sustainable agriculture and small scale farming. Many scholars also agree that a new beginning farmer movement is underway. Evidence for this trend seems to be everywhere, yet there is no reliable statistical data that definitively shows this increased interest. In addition, while the USDA-NASS agricultural census now records the number of "new" and "beginning" farmers, there is no data available on the number of "first-generation" farmers. Understanding the numbers associated with the perceived increase in first-generation farmer entry, the number of individuals who would like to start their own farms, but have been prevented from doing so by the barriers described in this dissertation would be extremely useful in academic research, and the promotion and development of policy programs that address their needs.

This study explores the most important barriers to entry for aspiring farmers, discusses the ways in which some have overcome these barriers in depth, and investigates the way in which ideological and economic factors that have evolved over time have

provided new opportunities for small-scale first-generation farmers. These opportunities include organic and local farming, both of which are growing sectors within agriculture. The research presented here focuses on first-generation farmers who have taken advantage of these growth areas, and have chosen to engage in them based on their personal values and belief systems. More comprehensive study is needed in order to determine whether this is a general trend or something unique to the relatively small sample of subjects interviewed for these papers.

Interviews with beginning farmer educators and advocates suggested that geography affects both the type of agricultural operations beginning farmers are choosing to engage in as well and their opportunity structures. Further investigation into the motivations, interests, and values of beginning farmers who are becoming commodity farmers in the grain belt could present an interesting contrast to the findings presented here.

An investigation of the motives, experiences, and values of individuals who are choosing to sell their farms to beginning farmers through the use of incentive programs provided by state and federal governments would be valuable as well. It could help to answer questions about whether these programs are actually effective in providing new opportunities for beginning farmers, or whether they would be choosing to sell their land to beginning farmers anyway, based on personal beliefs and ideologies.

The four subjects of intensive ethnographies presented in paper two have developed quite different farming systems based on their unique means of entry and learning. Broader studies could confirm whether this phenomenon is typical of beginning farmers in general, or specific to this group. Of these four families, none had participated

in formal beginning farmer training programs. This raises questions about whether their unique styles and modes of development are related to the fact that they were all self-taught, or whether this phenomenon is common to first-generation farmers. Investigations of the farming styles and entry strategies of individuals who participated in farmer training might show very different results.

Finally, investigations of non-native Hispanic, and other immigrant farmers who represent one of the fastest growing groups of beginning farmers in the country, and research on women farmers who represent a much larger percentage of beginning farmers than of established farmers could reveal interesting and unique results as well.

Afterword

The idea for this study emerged while I was working on research for a project related to organic farmers' perceptions of the National Organic Program. I met several first-generation farmers at that time who had opinions about the program, but shared them in a way that was much more humble, thoughtful, honest, and far less dogmatic (and dramatic) than what I had heard from others. Their energy, humility, openness, and intelligence were refreshing to a researcher who had recently been "preached to" by a number of other, more established and older organic farmers[51]. They also shared their personal experiences in a unique way that made me begin to wonder: "why in the world would anyone be crazy enough to choose a profession that is difficult to enter, full of risk

[51] I believe that farmers have the right to "preach" when they are interviewed by representatives of a land grant university with a long history of ignoring the innovative methods they have used to develop a different, more sustainable kind of farming; and that has failed to acknowledge the validity of their process and the growing success of their operations for many years.

that is related to issues (like weather) that are totally our of their control, and that offers few tangible rewards"?

I began to talk to these farmers outside of a research setting (at conferences and during other public events). I realized that they represented a totally unique and very interesting part of the agricultural community. They tended to be more open, more innovative, and more driven than most farmers I had met, which is saying a lot, since most farmers are extremely innovative and driven, and many are very open if approached in the right way. Through these experiences and a search for studies and data about first-generation farmers, I found that they had been almost totally ignored within academia.

After developing a preliminary proposal, and gaining permission from my institution to engage in "human research", I began to interact with these folks. I started by just asking them if I could visit their farms and work with them for a day. The "work with them" part of this query proved extremely useful, since I was, at the time at least, physically fit, and had enough experience working on farms to know that things needed to be done efficiently, quickly, and precisely. It appears that when a researcher can also be a valuable source of free labor, is respectful, and knows how to engage in humorous banter while doing difficult work, many inhibitions and questions about motive melt away.

There is a danger in forming friendships with research subjects, and this is a line that I walked like a tightrope. There is a natural camaraderie that develops between people who spend a day together banging fence posts into frozen ground; hauling raw lumber up into a dusty loft on a rickety ladder; retrieving a 100 foot piece of irrigation pipe from the bottom of an pond using a canoe, a rope, and an improvised grappling hook

– in March; or cutting up a 200 year old oak tree split by lightning and blocking valuable pasture access into almost two full cords of stove sized wood, and hauling it all back to the farm in a day long enough that the job requires the use of truck headlights to complete. It is a difficult tightrope to walk, and one from which I always tended to fall in one direction (toward friendship with the famer). Developing a friendship is not always a choice. Sometimes it just happens. But is something that requires extreme care in a research project. It is something that just happens sometimes. It is extremely important for people with whom you have (inadvertently) developed friendships to recognize that you are still, in fact, "studying" them during your interactions, and that they need to be sure to let you know what information they would like to be kept private.

Partly because of the nature of these interactions, and partly because I believe this information is extremely important to present in the interest of promoting and maintaining agricultural sustainability, this project has been enjoyable at times. Mostly, however, it has been a lot of work. The lack of a theoretical lens through which this kind of study is "typically" viewed, the complete void of statistical information about first-generation farmers, the limited information about beginning farmers, and my own background as strictly a "biological scientist" have presented challenges for me. My interest in presenting the results of my research in a way that might be useful in promoting the development of first-generation and beginning farmers has often come into conflict with the need to adhere to academic conventions. I can only hope that I have done each with at least partial success. I also hope that others will pick up this "research baton" in the place I have left it, and that run a few laps with it. I honestly believe that the entry and development of small-scale first generation farmers is essential to the

sustainability of U.S. agriculture. I also believe that first-generation farmers are an under-researched and under-appreciated group of American farmers, whose contribution to the future the future of U.S. agriculture needs to be both explored and promoted.