ASSESSING OPPORTUNITIES FOR
ORGANIC AND SUSTAINABLY GROWN LOCAL FOODS
FOR RESTAURANT AND RETAIL FOOD STORE DISTRIBUTION IN OHIO

A Thesis

Presented in Partial Fulfillment of the Requirements for
the Degree Master of Science in the
Graduate School of the Ohio State University

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The Ohio State University
2004

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ABSTRACT

Organic agriculture and local food systems are seen as an alternative to the negative environmental impacts associated with conventional agricultural production systems and mainstream food distribution systems. There is a necessary relationship between organic and local food systems based on their ability to abate environmental pollution. However, that potential is limited to the degree that "organic", "local" and "locally grown organic" foods are able to comprehensively permeate throughout the food system. Farmer's Market and Community Supported Agriculture (CSA) groups have been the foundational movements for promoting sustainably grown local foods. Initiatives to reach a broader range of buyers and create more marketing opportunities for local farmers have concentrated on developing restaurants and retail food outlets markets. Restaurants, food retail outlets, and individual consumers impact each others buying and eating habits by influencing product selection based on taste, aesthetics, growing methods, and place of origin.

Time, skill, mobility, information access and social networks are factors that shape farmers ability to price, market and distribute their products. Small and medium-scale organic growers in Ohio lack the distribution networks already established in large-scale production areas like California. In Ohio certified organic land has increased over three fold since 1999. However, few of Ohio's family farmers are pursuing direct marketing of produce, meat and diary products beyond farmers' markets and CSAs to
serve the growing demand for local and organic foods among culinary and retail communities. Statewide social surveys and interviews with 100 restaurants and food stores examine perceptions of local foods and assess the opportunities and barriers for marketing and distribution. Findings indicate a strong preference for low-input foods; respondents expressed difficulty sourcing products and the desire for a regional local foods distributor carrying a diverse array of high quality and culturally appropriate products to satisfy emerging needs of new ethnic and established communities. Understanding current regional market demands and purchasing patterns in Ohio can reveal new market opportunities for local farmers, local processors and distributors. These market opportunities could become a catalyst to adopt new farming techniques that would increase grower profitability while simultaneously abating pollution associated with agriculture.
Dedicated To My Family
ACKNOWLEDGMENTS

Thank you to my adviser Richard Moore for helping me to bridge the natural and social sciences. Your opinions, insights and challenges strengthened this research. I would like to express my gratitude to my other committee members Deb Stinner and Ben Stinner for reviewing this manuscript. Thank you to Deb Stinner for bringing me into the AMP and OFFER programs. With your encouragement and persistence this research grew out of the seed you planted in me. Thank you to Ben Stinner for challenging me to critically examine local food systems.

I’d like to express my sincerest gratitude to Lois Grant, Kathy Bielick and Deana Hudgins for moral and program support. Thank you to Jeff Sharp who freely and generously gave his time and advice.

A special thank you to Laura Ann Bergman and Innovative Farmers of Ohio for making this research possible. Your boundless energy and passion for Ohio’s farmers makes local food systems in Ohio an increasing reality everyday.

I am most grateful to Jason Parker for supporting me both academically and personally along every step of the way. Special thanks to Janet Lawrence, Rhonda Gruber, Charlotte Bedet, Lynn Sosnoskie and Shannon Varley for helping me to place this research in the big picture. I could not have completed this research without the love
and support of my parents, Linda and David, brothers, Jonathan and Benjamin and my
grandparents Albert and Catherine Freeman and Elaine Henderson.

This study would not have been possible without the inspiration and
advice of the farmers and activists dedicated to local and sustainable food systems.
Thank you for your guidance, wisdom and encouragement. Thank you to the chefs,
restaurant managers, and food retailers who participated in this study by sharing their
insights, opinions, critiques and suggestions.

This research was supported by a grant from the Ohio Department of Agriculture
– Ohio Proud Program.
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CHAPTER 1

INTRODUCTION

The Jeffersonian agrarian legacy once central to the American character is rapidly disappearing from the landscape. The United States has become reliant on a modern agricultural system driven by technocratic and capitalistic ideology that has resulted in the critical loss of farmland, family farmers and environmental degradation (Kirshnerman 2001). Since the early 20th century the emergent global food system has been based on production agriculture emphasizing maximum yields and efficiency. The current system has commodified and stratified the production and consumption of food, and in the process created an environmentally, socially and economically unsustainable structure built on vertical integration, centralization and social inequities (Berry 1996, Buttel 1996; Friedland 1991; Lyson and Raymer 2000, Council for Agricultural Science and Technology 2001).

In the past century agricultural systems have been radically transformed resulting in significant negative environmental, social and economic impacts. The over application of nitrogen based fertilizers onto highly erodable agricultural lands has become the number one contributor to the non-point source pollution of ground and surface waterways (US EPA 2000). The book Silent Spring by Rachel Carson (1962) first raised the alarm of the impact pesticides have in the environment and the food chain. Consumer concerns over health risks associated with pesticides has helped to drive the organic
foods movement (Friedland 1994). Vertical integration of both farm supply and food retail organizations has created a market based on homogenous products, bought at the lowest price possible with the greatest profit margin. Medium sized farmers and food retailers have disappeared from the landscape due to the difficulty of competing with these large capital intensive enterprises (Goldschmidt 1998; Ikerd 1998).

In response to these pressures, groups of academics and activists have proposed alternative food systems that are environmentally, socially and economically responsible. These foods should be available to all people through multiple sources including farmers markets, Community Supported Agriculture groups, grocery stores, restaurants and institutional settings. However, there has been little analysis examining the nuts and bolts of the transition process necessary in transforming these ideologies into reality. The aim of this thesis is to use sociological theories relating to capitalism including social embeddedness, marketness, instrumentalism and the role of networks in order to 1) establish a baseline of the current use and interest in local and organic foods among restaurants and food retail stores in Ohio and 2) to gain insight into the dialogue and influence that restaurants and retail buyers and their customers have on each other. While consumers have voiced their demand for these products, it is not clear how restaurant and food retail store buyers identify local growers and products, nor how the opportunities and barriers for organic and local food distribution of produce, meat and diary products, influence the production practices of local farmers.

In 2003 Innovative Farmers of Ohio (IFO) and The Ohio State University - Organic Food Farming Education and Research (OFFER) Program received a grant from the Ohio Department of Agriculture, Ohio Proud Program to build capacity for local and
organic horticultural crops in Ohio. The project brought two non-profit organizations, one
government and one academic institution together. IFO is a ten-year old farmer-led
organization focusing on farmer-to-farmer education and on-farm research that supports a
“common sense agriculture” that is good for the land and profitable for family farms
IFO 2003). The Ohio Ecological Food and Farming Association (OEFFA) is a 25 year
old membership-based, grassroots organization, dedicated to promoting and supporting
sustainable, ecological, and healthful food systems. OEFFA is both an educational
organization (sponsoring farm tours, conferences, workshops, publishing the Good Earth
Guide to ecological farms) and is a USDA accredited organic certification agency. The
OFFER Program is an interdisciplinary team of scientists researching organic agriculture
including crop-soil relationships, pest control, economics, and systems management
OFFER 2003). The Ohio Department of Agriculture “Ohio Proud” label is a program
used to identify and promote food and agricultural products at least 50 percent grown,
raised or processed in Ohio (Ohio Proud 2003).

In order to build capacity for these foods the grant outlined three main objectives:
1) sponsor Tilling the Soil of Opportunity workshops, a course geared to increase
business and marketing skills amongst agricultural producers. 2) sponsor an intensive
‘transitioning to organic horticulture production’ workshop presented by OFFER
program research scientists, and 3) a statewide assessment of the current use and potential
for organic and local Ohio Proud food distribution in restaurant and retail food markets.
The third objective serves as the subject of this thesis.

Local restaurants and food retailers impact Ohio’s agricultural landscape through
their perception and promotion of “local”, “organic” and “locally grown organic” foods.
This research employs three hypotheses to examine how the knowledge of local and organic food sources impacts the volume and frequency of purchases; examines the degree to which purchasing is dependent on the criteria of social relationships, taste and convenience as opposed to price; and the degree to which availability cycles determine how organic and local foods are promoted. The following literature review examines agricultural systems in a global context followed by a national perspective with a final review of agriculture in Ohio.
CHAPTER 2
LITERATURE REVIEW

The industrial revolution led to rapid urbanization and transformed the food system with advances in processing, refrigeration and transportation, thereby allowing centers of production to be located continuously further way from centers of consumption. The institutional separation of urban from rural and fully stocked grocery shelves increased the geographic and psychological space between producers and consumers and effectively masked the loss of farmland and shifting agricultural practices (Pothukuchi and Kaufman 1999). Using production as a goal, the field of agricultural science has successfully created its own networks and academic disciplines through the creation of land grant agricultural colleges and state Extension programs. Lyson’s (1998) survey of land grant universities found less than half of the agriculture faculty claiming support for sustainable agriculture. The faculty that were supportive tended to align sustainability with improving environmental quality rather than economic or social goals of increasing profitability for farmers or improving the quality of life in rural areas. Furthermore the reductionist nature of science has encouraged natural scientists to explore agriculture and it’s relationship to the environment in absence of its relationship to people. Stinner and Blair (1990) suggest the inherent faulty of this system when they state “perhaps the most important barriers to adoption of sustainable agricultural
systems are not biological or technological, but sociological and political.” Local food system and organic food research has primarily focused on yield, soil process, consumer profiles, studies measuring willingness to pay and less on the dialectical relationship between consumption and production. The activist call to systematically increase local and organic foods throughout the food system particularly into restaurants and food retail stores requires an examination of the social relationships and practical needs a local food system must deliver if it is to be successful.

The agro-food literature has traditionally been rooted in exploring the institutional structures of production. More recently scholars have begun to investigate the impacts of consumer behavior on the market place and on production systems. The following literature review explores the political economy of agriculture tradition followed by a review of the sociological forces influencing consumption and production including: networks, concepts of quality and consumer values. Recent studies examining consumer and farmer behavior in a local food system provide a mechanism for understanding how taste, status, culinary trends, and access to organic and local foods work as forces moderating the position of restaurants and food retail stores in a local food system.

Emergence of the Sustainable Agriculture Movement

Conventional agricultural systems are marked by the overuse of pesticides, chemical fertilizers and poor management practices, resulting in negative impacts on environmental and human health (Hardwood 1990; Stinner and Blair 1990). Agricultural systems have been identified as the largest non-point source of surface water and groundwater pollution (USEPA 2000, Stockle et al. 1994). The most visible
environmental impact has been the deterioration of estuaries such as the Chesapeake Bay, eutrophication of surface waters and the loss of available oxygen in marine environments resulting in hypoxia in the Gulf of Mexico (Altieri 1998; Foster and Magdoff 1998; NOAA 2003). Since World War II agricultural production systems shifted from small scale diversified farms into large concentrated crop or animal production centers. In the process farmers have increasingly relied on nitrogen-based chemical fertilizers while moving away from crop rotation and manure for fertility (Stinner and Blair 1990). In the livestock industry vertical integration and the increasing appearance of confined animal feeding operations (CAFO’s) increase environmental stresses and pollution by concentrating nutrients and runoff. The result has been the lack of nutrient availability in crop production areas and an overabundance of nutrients in areas of animal production (Altieri 1998). Both systems rely on non-renewable energy sources to produce, ship and deal with nutrient management.

The cultivation of monocrops relies on the ever-increasing use of pesticides and herbicides to maintain crop yields (Kenney et al. 1991). Since Silent Spring’s multiple studies have linked specific agrochemicals to cancer and other health risks resulting in the ban and limited use of certain chemicals (Altieri 1998). Food scares relating to the overuse of pesticides and hormones are documented by consumer protests to BST hormones in milk, concerns over listeria, salmonella, mad cow, and the 1989 Alar-apple and Cyanide-Chilean grape scares. These risks in the food system have caused a shift among some consumers towards organic food and towards buying from producers they know through Farmer’s Markets, roadside stands and community supported agriculture groups (CSA’s) (Friedland 1994).
Sustainable and organic agriculture are systems of farming that aim to maximize biological and ecological health while maintaining yield. Both systems strive to maximize productivity in an ecological balance by de-emphasizing the reliance on synthetic fertilizers and pesticides to maintain agroecosystem health. Organic fields have been found to have more soil organic matter and biological indicators of agroecosystem health including a higher density of soil invertebrates and bats compared to conventional systems (Stinner and Blair 1990; Meadows 2000; Wickramasishe et al. 2003). A 1989 National Research Council study sited by Meadows (2000) compared organic and conventional high-intensity farms in the same geographic local, finding organic yields were equal to or better then conventional systems, and could be sustained each year without costly synthetic inputs. Furthermore, anecdotal evidence shows that in drought and stress years organic soils out produce conventional ones. Food safety concerns, concern for the environment and the perceived health benefits of organic and pesticide free foods have driven the organic market to grow at 20% a year accounting for 2% of all food sales in the United States with a market value of $9-9.5 billion in 2001 (Greene and Kremen 2003).

Consumers have also become physically and psychologically disconnected from the food system. The modern food system has produced what Berry (1990 p126) terms the "industrial eater", an individual "who does not know eating is an agricultural act, who no longer knows the connections between eating and the land...who is therefore passive and uncritical." However, some consumers have become increasingly dissatisfied with the food available at the supermarket. Disappointed with flavor and quality consumers worry about purity and nutritional value; use of chemical inputs; how
far their food was transported; and often feel that mealtimes lack the feeling of home, family and community (Lappe 1990). More consumers are demanding to know where their food is produced (geographic location) by whom and with what types of production practices.

In the United States the agricultural landscape has been formed as much by government policy as it has been by topography. Moore (1990) and Bucheit et al. (2002) demonstrate how public policies including Public Law 480, the Food Security Act of 1985, trade liberalization, and tariffs both encourage and support commodity crop production in the U.S. For example since the 1940’s there has been a steady increase in acreage dedicated to corn and soybean production in Ohio. In 1935 soybeans only accounted for 0.7% of all 26,073,600 acres of farmland in Ohio (US Department of Commerce 1945) in 2002 soybeans accounted for 32% of 14,700,000 acres in farmland (NASS 2002). Government agricultural policy has emphasized an export strategy (supported through subsidies) to influence foreign diets centered on political and economic motivations. Moore (1990) reveals that U.S. policies and exports of wheat and rice have influenced the Japanese diet by leading to a decrease in native rice consumption. A new diet based on wheat negatively impacts local Japanese rice farmers, increases Japanese reliance on U.S food commodities and ultimately shapes the organization and structure of US farming systems.

The development of industrial agriculture in the United States created spheres of production – the Midwest as the “bread basket” produces the majority of commodity corn, bean and other grain crops, while California, Texas, Arizona, New Mexico and Florida have become the “fruit and vegetable basket” of America. However, the
availability of cheap labor and transportation subsidies has shifted the US to increasingly rely on imports of fresh and processed produce from the Caribbean, Central and South America (Friedland 1994; Llambi 1994). The current production, processing and distribution infrastructure of agricultural products is heavily reliant on trucking and non-renewable fossil fuel use. The Food system accounts for 15.6 percent of total U.S. energy consumption, within the food system transportation accounts for 11 percent of energy needs, with agricultural production accounting for 17.5 percent and processing at 28.1 percent (Hendrickson 1996 sited in Pirog et al. 2001).

Areas converting to large-scale organic agriculture production generally already have a comparative advantage for a particular commodity with an established infrastructure such as seed cleaning or processing facilities (Klonsky 2000). The emerging large-scale organic sectors are repeating the same geographic and transportation patterns as seen in conventional systems (Pollan 2001). For example, California has the largest number of certified organic acres, accounting for 6.4 percent of the 2.34 million acres certified in the United States (Greene and Kremen 2003). The vast majority of California’s organic acres are dedicated to fruit and vegetable production supplying most of the United States. Studies in the UK found that 75 percent of organic food is imported because local farmers (like their conventional counterparts) could not provide a consistent year round supply of quality produce. Studies have also found when transporting organic produce form New Zealand to the UK, the energy consumption is 235 times greater than the savings of organic production (Sustain 2001). Studies from the Leopold Center by Pirog et al. (2001) have quantified the environmental cost
(measured by the release of carbon dioxide) of transporting fruits and vegetables from
distant and proximate locations. Results found that

"conventional semi trailers had 17 times higher fuel use and CO₂ emissions compared with the semi trailers in the Iowa-based regional system, and 8.5 times higher fuel use and CO₂ emissions than the midsize trucks in the Iowa-based regional system...Growing and transporting 10 percent more of the produce for Iowa consumption in a regional or local food system would result in the reduction of 6.7 to 7.9 million pounds of CO₂ emissions depending on the system and truck type." (Pirog et al. 2001, p18)

In opposition to an increasingly globalized and environmentally unsound production system, groups of academics, activists, growers and consumers are demanding alternative holistic-production and marketing systems operating at a local or regional level embodying the ideology of ‘sustainability.’ In this context sustainability is defined as: environmental soundness, economic profitability and social responsibility with an embrace of the ‘proximity principle’ where food should be produced as close to the consumer as possible (Hendrickson 1994; Norberg-Hodge 1996; Purdue et al. 1997; Sustain 2001). The alternative agriculture and local food systems movements are founded in an ideology directly opposed to mainstream agribusiness trends and are embedded in the term “foodshed” (Kneen 1989; Lezberg and Kloppenburg 1996; Kloppenburg et al. 2000). The foodshed concept expands to whole economic, political, and social systems, where 1) consumer purchasing criteria is locally oriented and based on social relationships and 2) production systems are based on specific growing criteria using organic or environmentally compatible agricultural techniques. Activists have
pushed the foodshed concept to move beyond the Farmer’s Market to include mainstream food channels by advocating sales to restaurants and retail food stores.

The New Political Economy of Agriculture

Prior to capitalism and urbanization, food systems were more localized and trade for exotic foods was only affordable by elites. The modernization of agricultural systems was marked by the disappearance of the family farm, and the rise of large agro-businesses operating at national and trans-national levels characterized by vertical integration, contract farming and a reliance on wage labor (Heffernan and Constance 1994). These new actors and structures created fundamental changes in agricultural requiring a new framework of study (Lobao and Meyer 2001). Friedland’s (1984) commodity systems analysis studies, rooted in Marxism, examined the roles capitalism, corporate food producers and ag-state relations play in the global restructuring of agriculture, thereby establishing the political economy tradition (Cramer et al. 1997). As the market for year round fresh produce has continued to increase, mechanisms for satisfying demand at reasonable costs were needed. Systemic mechanization under capitalism transformed food into a commodity to be produced, processed, packaged, sold and consumed. Friedland (1991) declared that all mass-produced and niche foods (baby vegetables, exotics, and value added products), whether recognized or not, in the grocery store are part of the “productionist fordist food categories”, and as such he describes their production to be “mass produced, [with reliance on] mass transportation and mass consumption intended for mass and niche markets” (1991 p.213.) Political economy analysis relied on a supply-side perspective using a commodity-structuralist approach to
analyze the production, processing, shipping, marketing and consumption of food (Tigtmeier 2003).

The political economy of agriculture is criticized for its sole supply-side focus examining the food system with context and case specificity. Academics like Buttel (1996, p.222) realized the need to "theorize and include forces external to the farming sector including the non-farm labor market, state policy and shifts in class diets."

Studies have found that increasing distances between nodes along the food chain mediates the relationship between producers and consumers by introducing a new social actor, the distributor. A framework for understanding the role consumers and the various actors along the chain play was needed. Dixon’s (1999) cultural economy model for studying food systems has attempted to incorporate Friedland’s commodity systems analysis and political economy principles with considerations for the consumer in a broader framework to include: marketing and distribution networks, retailing practices and organization, food service practices, labor as a factor of distribution, food knowledge and discourse production, and regulatory politics.

The global flower chain provides a parallel to the global food system. Flowers and food have much in common, both are attached to a symbolic set of meanings, and both are produced in a global commodity system composed of researchers, producers, workers, traders and consumers. Hughes (2000) uses a combination of a global commodity chain approach with a network based analysis, viewed through a commodity culture lens to understand the relationship and influence large food retailers have over the cut flower trade. Networks provide a mechanism to view the flows and morphology of relationships between retailers, growers, distributors, and consumers in the processes of
consumption and production of a commodity. Friedland’s analysis of commodity chains was based on a linear view, while Hughes creates a web to included the “added chains of actors locked up in exchange relationships” including, florigenetic material supplies, floral fashion design trends, and the agencies, trade associations and consumer groups that dictate production (2000 p.184). Between 1986 and 1995 the UK flower market increased from 4 percent to 45 percent while the share held by traditional independent florists decreased from 47 percent to 24 percent, driven by large-scale food retailers selling cut flower bouquets. Rather than going through the traditional auction house importation systems, retailers are creating their own networks and relationships with producers, thereby positioning themselves as the key mediators between the producers and consumers. Retailers have been able to manipulate a complex network of consumers, designers, and producers in order to exert control over cut flower commodity channels.

Neither the political economy model nor the cultural economy model include environment as a unit of analysis. Production systems not only impact social and economic sectors but also greatly influence environmental health. In the livestock sector Hinrichs and Welsh (2003) have found:

“the degree to which a commodity system is vertically coordinated and geographically concentrated limits the effectiveness and relevance of the traditional approach to promoting sustainable production practices” (2003 p137).

A holistic analysis of the food system must take into account the mediating forces of ‘environment’ in the dialectic relationship between producers, workers and consumers. Consideration of the environment needs to be included when examining retailing practices and organization, and the role supermarkets and food distributors (supplying
restaurants and institutions) play as gatekeepers able to modify production system innovations (organic and sustainable production techniques).

Networks

The role of linkages directly relates to the vital function networks play for small businesses by producing ‘bridging relationships’ that provide information, facilitate diffusion of innovations, and create access to capital. (Goodman and Goodman 2001; Uzzi 1999). Network linkages in a local food system rely on social embeddedness, a sociological theory explaining how social structures affect economies and economic relationships (Granovetter 1985; Hinrichs 2000; Jarosz 2000). Networked businesses are embedded in social relationships with other businesses and organizations that create bonding relationships based on trust, shared norms and values, and expectations of fairness and reciprocity. Trade can occur under sub-optimal conditions through economies of regard which are created when exchange is in the form of a tangible product and in the form of a personal relationship e.g. sharing of knowledge, expanded use value, status, identity, friendship, power (Lee 2000).

The ability to communicate allows networked businesses to have a competitive advantage in the marketplace by customizing products to better suit buyer tastes and preferences (Grabher 1993; Human and Provan 1996; Perry 1999). Studies by Malecki and Tootle (1996) and Besser, et al. (1996) found that when compared to non-networked businesses, networked enterprises have far reaching backward linkages, are more likely to engage with other local businesses and local service providers, are more likely to provide stable employment, better working conditions, and be involved with community
organizations as community leaders and benefactors. The strength of weak ties documented by Granovetter (1973) demonstrated organizations that have more ties in their periphery were able to change faster and coordinate better compared to those without such ties. Thereby, implying that it is not compulsory for organizations to be tightly overlapping in order to share information, but they must have some form of communication in order to benefit from the advantages of networking.

Networks have also been found to have a pervasive influence on the production and consumption of products. Hughes (2000) describes the influence large corporate retailers in the U.K. have on the floral industry, finding a combination of nodal points along a network working to influence the type of flowers, who produces and production techniques used. In northeastern Ohio wholesale auction houses provide a centralized point for growers with limited mobility to sell direct to independent buyers. Blaine (1997) found the auction increased horticultural production and that buyer preference influenced type of crop, variety, and packing style. The auction provides an open space for buyers and growers to meet and discuss products and production techniques. Buyers can also signal preference for growing techniques by purchasing from farmers that use less agro-chemical inputs (Greff 2003).

**Concepts For An Ideal Food system**

To denote the local component integral to a sustainable functioning agricultural system, the term *Foodshed* was coined in the 1960’s as a biogeographic and environmental approach to demarcating relationships of production-consumption by socio-geographic place (Getz 1991). Academics including Kloppenberg and Lezberg
(2000), Kneen (1989), Dahlberg (1986), DeLind and Fackler (1999), Lyson et al. (1995) have employed the foodshed concept to house economic social welfare ideologies, land stewardship and ecological principles (predominantly organic or low-input techniques) an ideal food system would encompass. A sustainable food system strives to create community and market transactions based on a moral economy functioning on market forces driven by mutuality, reciprocity and equity (Lacy 2000; Scott 1976). Ideally the actors (local growers and consumers), should be engaged through active participation to moderate each other’s behaviors and practices, working to create commensal relationships via personal interactions and direct exchange (Le guin 1969). This direct chain of distribution is in opposition to mainstream industrial food chains.

Alternative’s to the Commodity Chain/Distribution Methods in a Local Food System

In the United States fresh fruits and vegetables are distributed through two predominant methods separated by space, they are: 1) Direct via Farmers’ Markets, Community Supported Agriculture (CSA’s), and U-Pick operations; 2) Indirect via produce auction houses and mainstream wholesale channels. Local food system activists have advocated for increasing the number of CSA’s and Farmers’ Markets in order to provide not only marketing and economic opportunities for local producers but as a space to build social, human and natural capital and facilitate diverse networks between growers and consumers (Feenstra1997; Purdue et al. 1997; Lyson 1998; Hassanein and Kloppenburg 1999; Holloway and Kneafsey 2000; Guptill and Wilkins 2002). Lyson et al. (1995) point to the multiple economic and social structural niches Farmers’ Markets
and CSA’s serve. The two systems are able to link the formal with informal economy while simultaneously accommodating a diversity of organizational strategies, products, and personal motivations for participation.

Farmers' Markets and CSA’s are a vital component to the sustainable agriculture movement and have proved to be highly successful ventures for farmers with the time, mobility and skill to effectively market their products (Feenstra 1997; Schaif and Morgan 1998; Henderson 1998; Ross et al. 1999). However these vehicles of distribution face obstacles to implementation and long term success. Growers face intense pressure not only to produce in an environmentally and socially responsible manner but to become skilled distributors, marketers and salespersons. Consumers are accustomed to a food system providing instantaneous gratification and freedom of choice, many feel constrained by the seasonally limited offerings CSA models offer (Goland 2002; Cooley and Lass 1998; Lass et al. 1999). Consumers also operate within a culture of convenience; grocery stores are open long hours to provide a diverse array of products and can accommodate personal schedules, versus Farmers' Markets and CSA’s, which only operate during specific days of the week with restricted hours. Participating CSA and food-box scheme members generally supplement weekly deliveries by shopping at outside markets, limited consumer choice was unable to satisfy all individual and household wants and needs (Schaif and Morgan 1998). Small-scale producers 'direct marketing' initiatives generally operate as a single proprietorship, on a relatively small scale reliant on informally organized household labor. Studies of UK consumers by Weatherell et al. (2003 p.241) found that
“buying local does not equate with engaging in a wholly different exchange relationship with producers, rather local foods are expected to accord with normal shopping habits, retail outlets and end-product formats if they are to play a regular part in the food choice repertoire.”

While these conditions at Farmers’ Markets and CSA’s encourage entrepreneurship and helped to foster local economic development they also limit the potential for creating pervasive change in the food system.

The Green Consumer

The standard neo-classical model states consumption is based on rational choice – individuals rank choice alternatives to maximize their own personal welfare, they have perfect knowledge and have no control over other available alternatives (Block 1990). Consumption directly enhances utility or welfare; items have characteristics useful for the consumer (consumption is distinct from the act of buying). Goods can fall into two categories: a non-positional good – which satisfy personal preferences and a positional good- a signal of welfare status (Goodman and Goodman 2001). A good can only be understood within the context of a society’s culture, norms and values. These conditions determine an individuals’ willingness to pay a given price or premium for the symbolic function of a particular good (Govindasamy and Italia 1999). Trends and competition for status can influence the lifespan of a certain good especially positional goods, which can cause structural changes in consumption and production.

The notion of the green consumer is founded on the belief that individuals may have wants or desires beyond simple welfare improvement extending to social justice and environmental values. And these ideologies can be transferred to and expressed through
the market place, where utility is not based solely on personal welfare gains (Pavlova 1999). Local food system advocates and environmental groups have tried to encourage sustainable consumption by creating labels and advertising campaigns that project a firm's ethical and environmental behavior, thus instituting a market system that attempts to reward and regulate fair labor practices and responsible land stewardship (Goldstein 2000).

The green consumer represents a large and lucrative market that organic and local foods movements have tried to capture through alternative food distribution systems. Allen and Kovach (2000) praise the potential of Farmers’ Markets and CSA's to decommodify the food chain by increasing personal relations and decreasing alienation. However, they also acknowledge marketing tactics used to promote local foods to a select sector of society at a premium price run the risk of turning local and organic foods into trendy positional goods that demarcate status used for individual display and distinction.

The 1999 Hartman Report identified the typical green consumer as urban, college educated, in the middle to upper income bracket, valuing fresh, authentic and healthy food primarily for their personal health benefits and were less concerned with benefits to the natural environment (Kovach 2002). Harris et al. (2000) review of research investigating the demands for local and organic produce discovered that traditional demographic variables such as age, income and education were unimportant when trying to construct demand models. Instead the literature suggests psychographic variables including lifestyle, values and self-image provide more useful information (Govindasamy & Italia 1999, Goldman & Clancy 1991).
The green consumer may be a more consciousness customer but they do not operate in isolation from the larger economic context, price still plays an important role in purchasing criteria for organic and local vs. conventionally grown foods. Market studies suggest 50% of all consumers are only concerned with price and convenience, while the remaining 50% are more likely to buy and pay a premium for organic and local foods (Govindasamy and Italia 1999). Willingness to pay studies have documented a wide range of consumers declaring their interest in low input food, different studies have found 49 to 83 percent of Americans are willing to pay more for foods grown with fewer chemicals (Harris et al. 2000). Consumer studies investigating the price sensitivity of organic produce found that price is the primary limitation on buying larger quantities of organic foods (Wandel and Bugge 1996). Both organic and non-organic buyers see organic as expensive but non-buyers view it as too expensive.

The health benefits associated with organic foods have been the primary reason for consumer interest (Harris et al. 2000). Research by Morgan et al. (1993) found Americans are more concerned with the effects of pesticides on their health than they are about secondhand smoke, air pollution, food poisoning or hormones in meat and milk. Individuals who purchase organic foods have a greater concern over pesticides in their food then non-purchasers, and rate protection from pesticide residues as the second most important reason for supporting organic agriculture (Goldman and Clancy 1991).

While organic agricultural is also associated with environmental attributes, the environment as an eco-label has had limited appeal to consumers (ACEnet 2000; Goldstein 2000). Trials to create an IPM-certified label in an upstate New York grocery chain found limited appeal amongst customers, the majority of which had difficulty
grasping the concept (Govindasamy and Italia 1999). Research conducted by The Leopold Center (2003) examined the ability of eco-labels to promote local foods by relating food purchases to food miles and CO₂ emissions. Results found respondents preferred:

"the set of ecolabel prototypes that had the least amount of information, that did not focus on the CO₂ emissions/environmental impacts, and connected the consumers' core value of product freshness with the time (in days) it took for the product to travel from farm to store” (Leopold Center 2003, p.3).

The study also found consumers were more responsive to locally grown over organic labels and to labels that would include “locally grown” and “family farmer.” These results point to the significance of local as a quality marker and importance of place when creating an incentive to buy local in a supermarket setting (Winter 2003). The successful “Food We Love” campaign by ACEnet in Athens, Ohio and the “Be a Local Hero, Buy Locally Grown” campaign by Community’s Involved in Supporting Agriculture in Western Massachusetts (CISA), demonstrate the ability of a label to convey an environmental and economic ethic through a social message (ACEnet 2000; CISA 2002).

**Theories in Capitalism**

Neo-classical economic theory provides the foundation for a free market economy in the United States. Economists claim that in this system, goods and services (including food) are bought and sold in relation to theories of efficiency, utility maximization, competition, and calculated self-interest (Cramer et al. 1997; Lyson & Green 1999; Lyson &Raymer 2000). A Marxist political-economy analysis of the
modern food production system would point to the industrial revolution as a turning point for western food culture. Options in a local food system for direct marketing initiatives do not operate in isolation from the greater capitalistic market economy predominating western nations. The ability of these alternative market outlets to enhance and encourage sustainable agricultural practices is dependent on their ability to survive and remain viable and profitable in the current market system.

Economic Sociology reinforces the notion that markets are socially structured institutions that are defined by cultural norms and meaning and influenced by social, political and cultural factors (Block 1990). Block provides the example of a company’s use of advertising to explain that the weighted decisions of value are not fixed but instead change every day. Granovetter (1985) stated that rational action depends on context by demonstrating that while it would seem more rational for a firm to purchase goods at a lower price, the need for good relationships with suppliers suggest another purchasing strategy based on trust. Block (1990) describes a prisoner’s dilemma game to demonstrate that the ongoing relationships one is embedded in helps to define how individuals act rationally in a given situation.

Two theories of capitalism proposed by Goodman and Goodman (2001) affect the interpretation of how alternative market transactions can have alternating impacts on the success of an idealized food-system. The Universalist Viewpoint holds capitalism and instrumental rationality to pervade all areas of human interaction - all aspects of economic and social life are commodified and based on capitalist social relations. Change and transformation within food-systems is catalyzed by consumer awareness - which will stimulate a reflexive, self-cognitive process leading individuals to demand
local sustainable agricultural systems. Principles found in the Universalist Viewpoint can be compared to the Spaces of Possibility Viewpoint where instrumental rationality is not universal – commodification of products is uneven, systems can be structurally coupled but maintain their own operational logics or rationalities through different social relations, identities, interests and values not found in a specific system. Spaces of possibility provide room for sustainable consumption to co-exist within a larger market based capitalist economy where multiple social groups and organizations that do not share each other's specific ideologies can be included and accommodated. This view holds institutional framework including: rural-urban bridges, social justice, social capital and government funding as essential components to attain long-term pervasive change in the food chain.

Since markets and consumer behavior is influenced by social relations, it is necessary to identify if and how this social embeddedness lends itself to the sustainable agriculture movement. The Spaces of Possibility View is contingent on rural-urban bridges. Bridges can only be built when the current town-country split is engaged in a discourse that promotes alternative production and market opportunities in a space where non-capitalist operational logics are allowed to prevail. Farmer’s markets and CSA’s relying on social embeddedness have been the physical manifestations of such efforts (Lyson 1995). Alternative markets still operate within an economic framework. Block (1990) describes the roles marketness and instrumentalism play in an economic sociology framework. Marketness is the degree to which price considerations dominate market decisions. Price has the greatest importance at the top of the marketness continuum, while further down the spectrum price remains a factor but has to compete
with other variables. Instrumentalisim – is defined as the nature of individual motivation. High instrumentalism is characterized by the prioritization of economic goals and the display of opportunistic behavior to obtain them. Low instrumentalism is the prioritization of non-economic goals and concerns (friendship, family, morality, etc.) Therefore, higher levels of instrumentalism work to negate the influences of social ties.

Hinrichs (2000) describes a system where these three motivational factors (social embeddedness, marketness and instrumentalism) operate in tandem within the farmers’ and buyers’ mind at a farmers’ markets and CSA. The degree of importance each holds in a given situation will impact an actor’s decisions and actions. Hinrichs (2000) found that price (in varying degrees) is still an important underlying motivational factor for consumers participating in alternative markets and creates a tension within the ideal notions of a foodshed, which are built on the premise of social embeddedness. Hinrich’s study reveals ties and personal connections, morals and values do not preclude institutional behaviors or price relevance from operating in a local food system – in fact all components operate in tandem simultaneously. Hinrichs points out factors of instrumentalism and marketness may not be morally negative, instead these concepts need to be analyzed within their relative structural positions and in regard to the intentions of an actor and their access to resources. Indeed these concepts may assist farmers in assessing potential markets and income opportunities.

The pressure to find alternative sources of income from farm products has encouraged increased participation in alternative markets that return more of the food dollar to the producer rather than to the middleman. Sage (2003) found relations of regard and social embeddedness moderated by degrees of marketness and instrumentalism in
three types of short food supply chains: 1) **Face-to-Face** – consumers purchases direct from a producer, regard is formed through repeated personal interaction; 2) **Spatial Proximity** – products are retailed within a region by a middleman acknowledged for having an expertise or association with a product; 3) **Spatially Extended**– distribution occurs outside the region of production, synoptic production details are mapped onto a product using pre-existing aesthetics to which consumers are already attuned. Sage posits it may be social embeddedness and relationships of mutual regard moderated by marketness and instrumentalism that will maintain the durability of local food networks under the pressures of trade liberalization, pursuit of lower standards and cheaper prices.

The transition to alternative markets has placed added pressure to develop sophisticated marketing, product promotion, distribution, and business skills in addition to the adoption of organic, transitional and sustainable farming techniques. Growers have to become finely attuned to shifting production systems and to fickle consumer preferences in order to maintain their livelihoods (Andreatta 2000). Sociologists have demonstrated economic actors are constrained and influenced by social relationships (Cowel 1994). The complexity of social and economic actions operating within an alternative set of markets requires a set of theories able to detect subtle and nuanced motivations. The concepts of social embeddedness, marketness and instrumentalism within the “spaces of possibility viewpoint” thus become useful tools to analyze the roles and positions restaurants and food retail buyers assume in a local food system.
The Formation of Locality and Quality

Under a neoclassical economic paradigm a market based society functions when consumers and producers strive to obtain the best product at the lowest cost. Consumers want to purchase a ‘quality’ product at low cost, while producers want to sell at a price where production costs and market price provide for profit margins. Research conducted by Lie (1997), Nygard and Storstad (1998), Lee (2000) demonstrate the limited explanatory power of economic models of consumer choice, especially when concerning food choices. ‘Quality’ in all its definitions is used as a marketing tool in all sectors of production including the food chain. According to Murdoch (2000) quality is subjective; context depends on the viewpoint of producer vs. that of the consumer. The following definitions and ‘quality scenarios’ indicate the complexity behind a seemingly simple term: visibility quality – the aesthetics of a product, productive quality refers to efficiency and cost, ecological quality - the efficient and responsible use of natural resources, brand quality – the recognition and trust in trademarks and labels, consumer-perceived quality – refers to nutrition and taste, experience based quality – quality judged in connection to actual use of a product (Nygard and Storstad 1998; Murdoch 2000).

The alternative agriculture movement has employed the terms ‘organic’ and ‘local’ as a quality assurance value-added label to market and promote products (Goldstein 2000). Academics site that local growers are often more ecologically responsible and conscientious then those growers producing for export due to reasons of locality. This theory was tested in Norway by Nygard and Storstad (1998) who found that the preference for locally grown was a food safety issue. The increasing distance
between producer and consumer especially in the fresh food chain is perceived to increase the opportunity for risk. Direct accountability decreases as growers and consumers are separated by greater gaps in space. From this viewpoint social relationships and networks are seen as the incentives to developing and maintaining an environmentally sound growing system. Ilbery and Keafsey (1999) cited in Murdoch (2000) have tracked the use of organic and local labels to symbolize quality assurance as a rural development strategy when marketing to urban consumers. Quality growing practices are used to signify the abatement of environmental degradation due to agricultural practices, accomplished by reducing the use of agro-chemicals, thereby translating into personal health benefit to the consumer. Organic certification is the main guarantee consumers have for a defined set of production practices (NOP 2003).

**Organic and Sustainable Agriculture on the Farm**

Organic as a ‘growing practice’ and ‘life style’ originally embodied all the goals of the foodshed. However, the popularity of the movement and growing consumer awareness has produced a lucrative market that large-multinationals have begun to pay attention and profit from (Klonsky 2000, Pollan 2001). Guthman (2002) sheds light on the co-option of organics by corporate industry to transform organic production into a production pattern parallel to the global food chain. Consumers understand organic as a label primarily ensuring personal health benefits and are less concerned with the environmental and labor production practices. Corporate organics are adopting the modern-agriculture paradigm to create a large-scale ‘organic’ system reliant on production efficiency, technocratic solutions and cheap labor for profit maximization and
not exclusively for environmental benefit. Guthman’s (2000) study of organic production in California showed that of 77 organic growers surveyed only 4 received a high agroecology ranking (as defined by Altieri 1995) yet all were within organic guidelines, rules and regulations. Guthman found when growers have less incentive to incorporate an ideal practice when an allowable one will suffice, organic becomes an efficient resources management practice rather then a holistic paradigm. This accommodation endangers the philosophies and practices that remain the fundamental roots of alternative social-ecological practices.

The decreasing integrity of the organic label becomes further justification for promoting social relationships as accountability measures promoted by local food systems activists. The ability of growers to adopt and actively practice organic and sustainable agriculture can be predicted based on its attributes of relative advantage, compatibility, complexity, triability and observability (Somers 1998). However, as alternative production systems are advocated an educated consumer must be present and willing to participate. Efforts in both the Midwest and the Netherlands found while farmers were able to quickly adapt and transition into organic and sustainable farming systems, the absence of product demarcation in the marketplace and lack of consumer awareness failed to support the extra cost associated with these production systems and growers quickly reverted to conventional practices (Dobbs et al., 2000; Van Weperen et al., 1998). Consumer support and demand is essential to instituting pervasive change in the agricultural sector.
Organic Agriculture and Sustainable Agriculture

The National Organic Program definition of organic is:

"food produced by farmers who emphasize the use of renewable resources and the conservation of soil and water to enhance environmental quality for future generations. Organic meat, poultry, eggs, and dairy products come from animals that are given no antibiotics or growth hormones. Organic food is produced without using most conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation" (NOP 2003).

Sustainable agriculture emphasizes agroecosystem health by maintaining biological and ecological integrity through closed nutrient cycles, soil fertility, in the effort to increase productivity and remain economically viable while meeting social and cultural norms (Benbrook 1990; Hardwood 1990; Moore et al. 1999). Stinner and Blair (1990 p.124) contrast sustainable agriculture from conventional high input agriculture by the emphasis on "long-term yield stability with minimal environmental impact – in contrast to focusing more on short term goals, such as maximum yields." The sustainability of an agricultural system is related to its ability to promote agroecosystem health. Conway (1987) recognizes agroecosystems as complex products of socio-economic and ecological processes. Conway uses the four criteria of productivity, sustainability, stability and equitability to assess agroecosystem performance and health. Sustainable agriculture is a holistic approach combining lowering inputs with the design of innovative cropping systems relying on techniques such as crop diversity, multiple cropping, intercropping, minimum tillage, agroforestry, intergraded plant and animal systems providing pathways for nutrient cycling processes.
What do Ohio Consumers Want?

Consumers have the ability to change the food system with their spending dollars. There are 11,373,541 people in Ohio spending an average of 13.7% of their budget on food expenditures, of which 59% is spent on at home purchases and 41% on restaurant and convenience away-from home purchases (Census Bureau 2001; ERS 2002). Results of the statewide Ohio Survey of Food, Agriculture and Environmental Issues administered by Sharp et al. (2002) found 62% of respondents did not think imported foods are as safe as foods produced in the U.S.; 81% of respondents indicated when given a choice they prefer locally grown foods; 20% of respondents frequently shop at a farmer’s or roadside stand, 49% occasionally do so; and 37% of respondents agree organic foods are safer then conventional, 22% disagree and 41% remain undecided.

Research by Rhodus et al. (1994) found that Ohio consumers believe farmer’s markets and road side stands offer the best quality and prices for fresh produce, while supermarkets are able to offer convenient hours, variety of produce, convenient locations, shopping atmosphere, selection of produce and a consistent supply of produce. Current and future Ohio organic farmers can take advantage of Ohio’s trend toward urbanization through diversification of farm enterprises to include specialty crops and new management approaches. An untapped market clearly exists for locally grown organic or low-input fruits and vegetables. Despite this potentially lucrative market, growers and consumers cite low consumption levels of Ohio grown foods due to a lack of access in grocery stores, lack of easily recognizable signage, inconsistent quality and availability (University of Akron 2001, University of Akron 2002).
The View from the Farm

Compared to mechanized corn and bean production, fruit and vegetable operations place a heavier reliance on human labor and require a different set of management practices to maintain agroecosystem and environmental health (Jeavons 1974). While corn, beans and grains are dried, stored and sold as the market demands, fresh produce spoils quickly and rapid market transactions are imperative. Direct marketing initiatives have been promoted by sections of the Ohio State Extension Marketing and Rural Development initiatives. Some Extension efforts have been made to orient growers away from ‘corn and bean production’ and move towards direct-marketing enterprises including: farmers markets, U-pick fruit and berry operations, value-added processing and agri-tourism (Ellerman 2001). However, the majority of Ohio growers are engaged in dairy and grain production, a transition to fruit and vegetable production, to organic and to direct marketing requires a radical shift in skill, market knowledge and culture (SARE 2003).

The 2002 Ohio Agricultural Survey counted 78,000 farms in Ohio and a total of 14,700,000 acres of farmland. Over 60 percent of land is dedicated to corn, soybeans and grains, 38 percent are engaged in animal production and only two percent of the land is producing vegetables, fruits and nuts (ODA 2002). The distribution of land devoted to grains, livestock and produce are paralleled between conventional and organic production. In Ohio the number of certified organic acreage tripled from 12,015 in 1997 to 41,460 acres in 2001(Greene and Kremen). The number of organic acres is equal to 0.3 percent of Ohio’s total farmland. Over 83 percent of organic land is dedicated to grain, bean, oilseed and hay production (Table 2.1). Less then 0.1 percent of organic
farmland is engaged in vegetable production (NASS 2001). In Ohio corn, soybeans and
grains produced for commodity and export markets, dominate both organic and
conventional agriculture.

In 2003, Ohio had 217 certified organic farmers; however, this figure may not
reflect the true number of small-scale farms engaged in vegetable and organic production
(Sears 2003). Under the new USDA National Organic Program (NOP) growers earning
less than $5,000 are exempt from applying for certification. Therefore many small-scale
growers may not be counted under formal census definitions of organic. There are two
main nationally accredited Ohio-based certification agencies, 1) The Ohio Ecological
Food and Farming Association (OEFFA), which is predominantly used by growers
selling direct to consumers, restaurants and retailers to market fruit, vegetables, meat,
grain and processed products in the state of Ohio and surrounding areas; and 2) Organic
Crop Improvement Association (OCIA), which is used by growers for the domestic and
international sale of raw and processed products. Ohio growers generally seek OCIA
certification for soybean and grain crops for sales to national and overseas organic
commodities brokers, wholesalers and processors (Sears 2003). In 2002, OEFFA
certification noted a decrease in organic certification among small vegetable farmers
falling under the $5,000 rule. However, that trend has reversed in 2003 because many
regional food buyers require an organic certificate. OEFFA has noted that the number of
certification applications continues to increase every year.
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<tr>
<td>Total US Organic Land</td>
<td>454,598</td>
<td>211,405</td>
<td>43,722</td>
<td>253,641</td>
<td>71,677</td>
<td>55,675</td>
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<td>Grown in Ohio</td>
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<td>Ohio Acres in</td>
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<td>Production</td>
<td>13,350</td>
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<td>1</td>
<td>2,074</td>
<td>4,592</td>
<td>41,460</td>
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Table 2.1: Certified Organic Acreage, Selected Crops, US and Ohio Statistics
Barriers to Organic and Local Markets

Surveys of organic producers, both in Ohio (Rzewnicki 2000) and nationally by the Organic Farming Research Foundation (OFRF) (Waltz 1999) document the need for assistance with prices and pricing, finding buyers, locating markets, and determining consumer demand for organic products. The OFRF (2001) grower survey found 25 percent of growers cited the direct-to-retail venue as the most difficult market to enter; yet 64 percent of growers expressed a desire to increase direct-to-retail marketing operations. IFO & OEFFA (2002) Ohio producer surveys revealed the majority of respondents devoting 0-20 percent of their time to marketing. A significant number of respondents expressed interest in joining a marketing and/or distribution cooperative or selling through a local broker, yet were unsure how to connect with one.

The Retailer

Two major innovations that have dominated the modern retail food business are the chain store and the supermarket, both of which evolved to sell large volumes in order to compensate for the low profit margins associated with food. The vertical integration visible in agricultural production is also visible in the food retail sector (Winson 1992; Christopherson 1996; Wrigley 1996). Corporate agro-business has commodified food production through a series of vertical networks orchestrated by a hierarchy of macro-actors, primarily large multinationals with goals to increase production, distribution and profits. At present six large multinational corporations account for 46% of the total $221 billion in U.S. retail food sales (Lyson and Raymer 2000). These trends demonstrate the ability of companies to successfully maximize profit margins using marketing and
advertising campaigns that have created demand for standardized inexpensive food products. Firms are able to satisfy these demands by concentrating on production and distribution efficiencies, relying on vertical integration, technocratic agricultural practices, transportation and water subsidies, high application rates of agro-chemical inputs, and an overwhelming dependence on cheap labor (Friedland 1994; Allen and Kovach 2000; Guptill and Wilkins 2002).

The concentration of buyers has increased the bargaining power of retailers over farmers and manufactures, so that retailers are able to dictate product specifications and also have significant influence over consumer preferences (Friedland 1981; Winson 1992; Foord et al. 1996) On the supply-side, retailers have primarily been concerned with controlling the aesthetics and cost of products with less involvement in the production standards relating to sustainable farming principles or farm worker and labor issues (Cook 1994). Cook (1994, p.236) found grocery’s are able to influence customer advertising with “maps of meaning”, associating specific foods with notions of class, place, healthy living and sensual experience. Retailers have used specific foods to attract customers and retain business. Winson (1992) notes the one time a supplier group is more powerful than the retailer is when products are an important or vital component of the buyers business.

The produce department is one of the top five reasons consumers choose a grocery store (University of Akron 2002). Morris et al. (1993) found that while mainstream consumers tend to have a positive view of organic produce, grocery produce buyers and produce managers tended to have negative views, believing organic produce is too expensive and price is a main barrier to sales. Produce managers were cognizant of
the relationship between growing practices and environmental impacts, as 61% of organic produce sellers and 52% of non-organic produce sellers rank ‘better for the environment’ as one of the top three reasons to sell organic produce. The attitudes among produce buyers and managers can influence the type of products offered in a store. However, Guptill and Wilkins (2002) document consumer interest and preference for purchasing local and sustainably grown produce in grocery stores, suggesting these foods can become an advertising and promotional feature for retailers. The Food Alliance (in the Northwest and sections of the Midwest) and Red Tomato (in New England) have been able to distribute low-input foods into mainstream grocery chains. Retailers are increasingly catering to consumer demands as a way to build customer loyalty and shape retailer identity (Hughes 2000).

Economic Research Service (2002) branch of the USDA provides valuable information on the growth of the organic market and the means by which customers are procuring these foods. Organic retail sales continue to grow 20% a year, products are available in 20,000 natural food stores and in 73% of conventional grocery stores. In 2000 over $7.8 billion was spent on organic food: 49% was purchased in conventional supermarkets, 48% in natural foods markets and 3% via direct marketing outlets. The large volume of organic foods being sold through supermarkets emphasizes the influence customers have over the food system. The interest in local and organic foods is visible in “home grown week” promotions and the increasing appearance of these foods in stores ranging from mom and pop groceries to Walmart (Ohio Proud 2003).
Every day consumers are bombarded with marketing campaigns and labels competing for an increase in market share. The average consumer spends approximately 18 minutes in the grocery store to pick up 21 products out of a possible 40,000 (Van Ravenswaay 1997 sited in Goldstein & Bensel 2000). Researchers Robinson et al. (2002), Jones et al. (2001), Reicks et al. (1999) have investigated consumer responses to in store product promotions and campaigns for organic and sustainably produced foods in the United States and Europe. Results suggest increased exposure to signage and trial behavior may increase consumer’s awareness of labels and increase purchasing. However, results cost time, money and an aggressive promotional campaign.

U.S. food retailing trends demonstrate that local foods can enter mainstream food distribution chains including; superstores, independently owned conventional grocery stores, conventional chain grocery stores and green grocery stores (Lockie et al., 2000; Guptill and Wilkins 2002). Competition within the grocery sector is creating trends to de-emphasize relationships to the conventional concentrated food manufacturing sector and are instead emphasizing local and ‘homegrown.’ The three factors that will determine the success creating and maintaining a successful local marketing and distribution system able to service retailers are: 1) establishing a regional identity based on high quality products, 2) cooperative marketing strategies amongst producers and technical assistance from appropriate institutions and 3) the overwhelming importance of quality and price competitiveness (Feenstra 19997).
The Restaurant

In 1972, at Chez Panisse, chefs Alice Waters and Jeremiah Tower began a food revolution by basing weekly and daily menus on the availability of seasonal fresh off-the-farm products; in essence turning seasonality into a definition of quality and creating a “taste of place” culinary trend (Starr et al. 2003, Trubek 2003). The expression of lifestyle through food deepened with the Slow Food movement that aims to “defend food heritage,...the right to taste, improve knowledge about production processes and establish direct contacts with farmers and artisans” (Petrini cited in Starr et al. 2003). In the US, The Chefs Collaborative is a national organization of chefs dedicated to forming partnerships with local farmers, ranchers, and artisanal producers. The collaborative aims to be educational from within by promoting the genetic diversity of foods and the merits of sustainable agriculture to chefs while reaching out to consumers by demonstrating shopping habits at farmers’ markets and by placing farmers’ names on menus. The Collaborative has also taken steps to educate local farmers on the chefs’ perspective, such as products to raise, season-extension, preparation techniques, describing how restaurants and other culinary institutions make buying decisions and defining delivery demands. (Chefs Collaborative 2003).

Food choice is embedded in a larger contextual framework not related to the means of production or product origin but can be dependent on health, body, social standing, taste, kinship ties and social groupings (Weatherell et al. 2003). Chefs as personalities are celebrated through mainstream television programming (The Food Network) and popular culinary magazines (Gourmet, Saveour, Bon Appetite). The chef has become a change agent influencing the way Americans relate to food through
definitions of quality and methods of food procurement (Balint 2003). Waters (1990 p120) states:

"Restaurateurs have a very real stake in the health of the planet, in the source of the foodstuffs we depend on, and in the future of farmers, and fisherman, ...ultimately it comes down to realizing the necessity of the land to what we do and our connection to it."

Restaurants that have successfully adopted locally grown organic and sustainable foods based on the notion of cuisine de terroir (food of the native soil) have required the chef to become a change agent to network with local growers to develop products and establish supply chains (O’Neil and Whatmore 2000). Chefs have used their relationships as forces for change where they are able to construct a market space for local growers and promote local and sustainable grown foods to the general public.

The national and international trend towards local foods has been challenged by the absence of a local foods infrastructure. The wholesale food chain has decimated local provisioning systems requiring individuals and communities to rebuild the infrastructure from the ground up (Kloppenberg et al. 2000). Starr et al. (2003) discovered amongst restaurants the interest in local foods is high but the issue of distribution, reliability and consistency prohibits wide-scale purchases. Research by Starr et al. (2003) found Colorado restaurants demonstrated a high interest in purchasing locally grown foods based on the merits of freshness, supporting other local businesses, and buying products that minimize impact on the environment. Being located in an agricultural region was correlated with purchasing more local foods and wanting to minimize impact on the environment. Limitations to purchasing included: dependability, reliability, convenience,
preference for one supplier, followed by seasonal constraints, price and health department restrictions.

**Distribution Obstacles Created by Residential Design and Development**

There appear to be several obstacles hindering Ohio’s existing organic horticultural grower’s ability to meet the in-season demand in Ohio’s organic markets. A significant market-access barrier facing existing organic specialty crop growers is distribution efficiency limited by residential design. The growth and development of urban areas in Ohio is different than the development of high-density cities like New York and San Francisco. Areas including Columbus, Cincinnati, and Akron tend to sprawl outwards, as their major development period were in the later half of the 20th century following the suburbanization and sprawl template. For example between 1970 and 1990 Cleveland’s population decreased by 8 percent while the size of the city increased by 33 percent (Sprawl Attacks 1997). Therefore when markets and distribution routes are set up based on demand, the time and fuel it takes to reach these venues may be quite different in New York City with eight million people in 321 square miles compared to driving across the city of Columbus (excluding the suburbs) with 711,470 people in 212.6 square miles (Marshall 2000; Faulkner 2001; City of Columbus 2003; New York City Fire Department 2003). A scattered population combined with a lower demand for organic foods poses a unique challenge for Midwestern local and organic farmers. Furthermore retail and restaurant establishments demand quality, quantity and flow of products, requirements that large-scale out-of-state producers have been able to satisfy but one that existing independent Ohio growers have not been able to fulfill.
Independent marketing and distribution involves high demands on time, labor and transportation costs, thereby limiting the return on profit for individual farmers and preventing full entry into the growing but diffuse Ohio natural food market.

Restaurants, food retail outlets, and individual consumers impact each others buying and eating habits by influencing product selection based on taste, aesthetics, growing methods, and place of origin. Understanding current regional market demands and purchasing patterns in Ohio can reveal new market opportunities for local farmers. The intent of this research is to 1) Understand the current use and interest of restaurants and food retail outlets in local, organic, and locally grown organic foods; and 2) Assess the opportunities and barriers for local foods marketing and distribution.

**Hypothesis**

The purpose of this study was to generate a statewide overview of current and potential organic and local food markets in restaurants and retail food outlets in five metropolitan regions within the state of Ohio. The goal of this research is to assess the opportunities and barriers for local food distribution by understanding distribution and marketing system preferences, time and day of deliveries, packaging preferences, current distribution streams, and the role of internet technology. In order to develop a baseline for current use of local foods among restaurants and food retail stores respondents were asked to list the percentage of produce, meat and dairy products from their total inventory by season that was grown locally, organically, and a combination of organic and local. The following three hypotheses were constructed to understand how networks, social
embeddedness and consumer demand influence the purchasing patterns of restaurant and retail food buyers.

**H1. The volume and frequency of organic and local foods purchases is a function of knowledge about the location of network resources, flow of information, and fluctuating seasonal availability.**

Diffusion of innovations research has demonstrated the most common barrier to the adoption of new products, technologies, and ideas is the limited access to information and resources (Brown 1981). Network analysis has demonstrated the flow of information within a given group or community can help to explain the individuals or sub-groups better able to take advantage of resources and opportunities. The first hypothesis aims to understand how the networks restaurant and retail food stores engage in provide information on the availability and sourcing of local and organic foods, and the resulting influences on purchasing patterns. Knowledge and use of local and organic foods can be mediated by space and time. Space can be conceived as the distance between the network nodes of a restaurant and retail food buyer and a local producer. This space can be further conditioned by the methods food buyers use to source products e.g. specific trade catalogues and the internet vs. means a local producer might use e.g. a local newspaper advertisement. Ohio can produce a year round supply of meat and dairy products but has a limited growing season for fresh produce. The seasonal fluctuations in local supplies can separate buyers and farmers across time. The ability of local producers to use season extension techniques and increase the growing year might alter the purchasing behavior of buyers.
H2. Purchasing criteria is dependent on the instrumental values of social relationships, taste and convenience rather than price.

Restaurants and food retail outlets demand quality, quantity and flow of products. The degree to which local and organic producers can meet these requirements can determine their potential for entering local restaurant and food retail markets. Social relationships have long been recognized as key to maintaining business relationships, however, suppliers must also be able to deliver products within a set of parameters. The second hypothesis aims to define and test supply and demand parameters for restaurant and retail food buyers in a local food system. In this case parameters to be explored include specific purchasing and distribution criteria. Based on the earlier discussion of buyer demands, it is anticipated that a positive association will be seen between taste, ease of access and the purchasing of local and organic foods.

H3. The degree of signage on shelves, menus, and personal interactions is dependent on the degree of steady flow of organic and local food resources.

The third hypothesis is directed at understanding the differences between the restaurant and food retail store markets. Customers come to restaurants and food retail stores with different expectations of service and different goals for food provisioning. Customers often use restaurant dining as an opportunity to indulge in foods not normally prepared at home. While previous discussions have centered on the perceived benefits of organic and local foods it is not well understood how the choice to consume these products translates in different situational settings. This hypothesis relies on the use of
advertisements and promotions for local and organic foods as indicators of customer demand in specific markets.
CHAPTER 3
MATERIALS AND METHODS

Materials

A snowball sampling method described by Berg (2004) and Lofland and Lofland (1995) was used to ensure a range of respondents with varying levels of exposure to local and organic foods. Restaurants and food retail outlets were chosen through a series of inquiries by: contacting food editors from each of the cities major papers, free city newspapers, online restaurant reviews, guide books (e.g. Zagat’s) and word of mouth. Survey’s and interview techniques were developed with input from two focus groups attended by chefs, restaurant owners, and food retailers (Berg 2004). In-depth semi-structured interviews using an interview guide (Appendix A) were conducted with each of the respondents.

Based on regional representation and population five cities were selected for this study. Akron (population 569,804), Cleveland (population 1,787,132), Columbus (population 1,540,157), Cincinnati (population 1,979,202) and Toledo (population 618,203), covering the northeast, north central, southwest and northwest sections of the state. Figure 3.1 shows regional population centers and the distribution of organic (OEFFA certified) farmers. Within each region twenty restaurants and food retail outlets were surveyed. I conducted a total of 100 interviews with restaurants (n = 68),
Figure 3.1: Map of Ohio and Location of OEFFA-Certified Farmers
independent food retail outlets \((n = 22)\), chain groceries \((n = 6)\), and co-ops/natural food stores \((n = 4)\). Based on menu and retail prices respondents were placed into one of three categories: expensive \((n=20)\), moderate \((n = 50)\) and inexpensive \((n = 20)\). Restaurants ranged from inexpensive “mom and pop” diners to high-end gourmet restaurants. Food retail outlets included: ethnic grocery stores, independent food retailers, regional chain grocers, natural food supermarkets, and co-op grocery stores.

Identified restaurants and retail outlets were sent postcards explaining the purpose of the research and notifying potential respondents that a researcher would be calling to schedule an interview. Some respondents initially did not want to participate in the survey believing purchasing local foods was a requirement for participation. This misconception was clarified during the initial phone call. Two percent of those individuals asked to participate in the survey declined to do so. Due to time limitations 15 respondents preferred to interview over the phone, while the remaining 85 agreed to in-person interviews.

Face-to-face interviews were conducted at each location with the individual in charge of ordering food, generally the chef, manager or owner. At the onset of each interview respondents were given a ‘Local Foods Connector Card’ as a thank-you for participating in the survey and as a way to increase awareness and access to organic and local food resource in the state (Figure 3.2). Cards provided web and contact information for four statewide organizations supporting the research project including two non-profit farmer interest groups: Innovative Farmers of Ohio (IFo) and The Ohio Ecological Food and Farming Association (OEFFA), plus The Ohio Proud Division of the Ohio Department of Agriculture and The Ohio State University Organic Food Farming
Education and Research (OFFER) Program. Each year IFO, OEFFA and Ohio Proud update their list of farmer members, their products, and contact information in forms accessible over the internet and via in-print guides. The organizations listed on the card serve as information and networking resources for producers, processors and to an extent distributors in the state of Ohio. Farmers rely on these organizations to provide technical support materials and are increasingly asking for marketing support.

Following focus group recommendations, I was responsible for asking a series of open and closed ended questions and recording all answers following criteria outlined by Berg (2004) and Lofland and Lofland (1995). Relying on methods outlined by Warren (2003), conversations and data conducted after the interview had officially ended were collected and added to the primary data set. Interview design was based on Berg’s (2004) ten commandments of interviewing. Data was decoded into themes using Berg’s (2004) and Lofland and Lofland (1995) methodologies of data reduction, summarizing and coding. After coding, data was keyed for analysis using Microsoft Access and SPSS. Descriptive statistics, Phi and Crammers V analysis were used to determine significant relationships among variables.
The Local Foods Connection
Your Guides to Fresh Locally Grown & Produced Foods

The OEFFA Grower Guide
http://wwwoeffa.com/geg.html

Innovative Farmers of Ohio
http://www.foh.org

Ohio Proud Partners
http://www.ohioproud.org/

Innovative Farmers of Ohio
3083 Liberty Road
Delaware, OH 43015
Phone: 740-368-8552

Ohio Ecological Food & Farming Association (OEFFA)
P.O. Box 82234
Columbus, OH 43202
Phone: 614-421-2022
Fax: 614-421-2011

Ohio Proud Program
Ohio Department of Agriculture
8995 East Main Street
Reynoldsburg, OH 43068
Phone: 800-467-7683
Fax: 614-644-5017

Organic Food Farming Education & Research Program
Ohio State University
Thorne Hall—OARDC
1680 Madison Ave
Wooster, OH 44691
Phone: 330-202-3527

Figure 3.2: Local Food Connector Card
Definition of Survey Terms

Local was defined to be any produce, dairy or meat item grown or raised in the State of Ohio. The definition of local was expanded to include regions of neighboring states for cities identifying themselves outside of state borders, e.g. Cincinnati is linked to areas in Kentucky and Indiana; and Toledo respondents identified with eastern Michigan. Respondents were asked to reference questions within these geographic parameters. Organic was defined as farms certified under the National Organic Program. Farmers that did not have organic certification but claimed to incorporate organic methods were defined as low-input. The term ‘natural’ was not used in this survey because of its vague definition compared to the terms ‘organic’ and ‘local’, which have a clear definition based on geography and a nationally regulated set of standards, respectfully.

Methods

The ability of local foods to penetrate into the food system infers that buyers should have an awareness of local growers, how to access them and the roles of various agriculture and food based associations. Hypothesis one is structured to uncover how purchasing patterns are moderated by networks and the perceived availability of local and organic foods. A series of questions were designed to gauge networks by understanding membership in food production and professional organizations including: IFO, OEFFA, Ohio Proud, Chefs Collaborative, American Culinary Federation and Chambers of Commerce. Questions regarding ‘food sourcing’ were used to gauge the operationalization of ‘organic’ and ‘local’ foods from the respondents perspective. Respondents were asked if they purchase local and organic, from whom, their perception
of quality, and mechanisms for understanding food trends and regional consumer tastes and preferences. To understand the relationship between availability and purchasing patterns, respondents were asked to quantify their actual purchases of local, organic and locally grown organic—produce, meat and dairy products by season. An additional component to availability is ease of ordering. A series of questions were structured to understand preferred ordering systems and the use of technology (internet, phone and fax systems).

Hypothesis 2 attempts to understand how concepts of marketness, instrumentalism and social embeddedness translate into purchasing criteria among restaurant and retail food buyers. Respondents were asked to rate the importance of taste, convenience and price in terms of purchasing criteria. To assess how distribution streams impact the willingness (or volume) a commercial buyer will purchase, respondents were asked about their trust in farmers, interest in creating relationships with farmers, and preferences for purchasing direct from a farmer or from an Ohio regional distributor.

Hypothesis 3 is designed to understand how restaurants and retailers respond to and create customer demand. Respondents were asked a series of questions relating to product promotion and advertising via. signage and verbal communication. Respondents were also asked if and how employees were trained or educated on the values and merits of local and organic foods.
CHAPTER 4
RESULTS AND DISCUSSION

H1. The volume and frequency of organic and local foods purchases is a function of knowledge about the location of network resources, flow of information, and fluctuating seasonal availability.

Recognition and Membership of State Based Agricultural and Food Agencies

The local food connector cards elicited an immediate response among 58 percent of respondents before the first survey question was even asked. Respondents exclaimed appreciation for the cards, commenting they have been frustrated over the desire to purchase locally but have no way of sourcing products, knowing where farmers are or who to contact. As one chef stated, “I’d love to buy local produce, I never knew it was an option to purchase from local growers, no one ever markets to me.”

The ability of state agricultural organizations to create markets and provide support structures for constituents requires contact and interaction with actors outside the farm gate. Interviews revealed a disconnect between growers, grower groups, and food buyers.

- Though 55 percent of respondents reported purchasing organic foods, only 10 percent recognized the Ohio Ecological Food and Farming Association (OEFFA), the primary organic certification agency in the state. Six of the 10 were OEFFA
members. Many restaurants that did purchase from an OEFFA certified farmer commented they had not heard of OEFFA and wondered why their farmer hadn't mentioned the organization before. Respondents who were members of OEFFA tended to have had a long relationship with the organization and were heavily involved with the organic movement. Some respondents who knew of OEFFA through farmers they had relationships with often did not know they could be member if they were not a producer.

- Three respondents heard of Innovative Farmers of Ohio, but none were members.
- One respondent was an Ohio Proud Program member, 78 percent did not recognize the program. After explaining the program, respondents were asked if the label was important when making a purchasing decision; 26 percent said “Yes”, 2 percent said “No”, and 72 percent said “Not Important”. One chef stated, “I've heard of the Ohio Proud Program, but I don't understand it and I've never been offered it.”

Figure 5.1: Federal and State Labels
Information Flows

If restaurants and retail outlets are not networking with local and state based agricultural agencies, who are they networking with? Responses from restaurants and retailers revealed these enterprises tend to align themselves closer to the business community than to the agricultural community. Farmers and agricultural agencies can enter a food buyers’ network by understanding how they receive and share information. The following responses provide keys for farmers and agricultural groups to understand food buyer’s networks and current market demands.

• 55 percent of respondents belong to their local chamber of commerce.

The function of a Chamber of Commerce is to create economic opportunities for local businesses and act as advocates for constituents at the local and state level. Few farmers, even those selling direct to customers rarely belong to a chamber. Without membership, farmers and local farm issues that can have tremendous economic impact are unrepresented in the local business community. The Small Farm Institute based in Holmes County is working on models to increase dialogue and interaction between farmers and chambers as a critical piece of farmland preservation and farmland profitability.

• Six percent of respondents belong to a better business bureau.

• Among the 68 restaurants: 14 percent were active American Culinary Federation members, 6 percent belong to the Restaurant Association, and 10 chefs participated in a local Southwest Ohio Chef’s Collaborative chapter. Compared to retailers, restaurants have a different set of networks based on professional levels. High end
restaurants are more likely to be run by a professionally trained chef who is more likely to associate with other certified chefs than with a family run restaurant cook.

- 78 percent of respondents reported their primary sources of information were trade and food magazines (e.g. Food Arts, Gourmet Magazine, Bon Appetite, Saveour.) Grocers tended to rely more heavily on distributors for produce availability information versus restaurants that base their orders on menu needs. Growers tend to plan crops based on seed catalogues and farm magazines. Subscribing to food magazines would allow farmers to see the market as their buyers do. Many of the trends highlighted in these magazines are current along the East and West Coast and may take months to years before diffusing to the Midwest (diffusion may be more rapid since the introduction of the food network). This time lag provides Ohio farmers ample opportunity to begin experimenting and cultivating with new crops and products to serve an untapped market. These opportunities will be discussed again in later sections.

- 70 percent of respondents reported using the Internet for food ideas and trends.

- Only 12 percent of respondents claimed their sources of information feature organic produce, and 10 percent said their media advertised a means for purchasing these products.

The Cincinnati and Cleveland regions were distinguished by a network of farmers actively pursuing markets. These regions were more likely to purchase local foods (Crammers V = 0.4) compared to Akron, Columbus and Toledo. Regional grower groups were loosely associated by an informal chef's collaborative group or growers clustered in geographic space collectively distributing their produce to a proximate urban locale. The
effects of the Chef’s Collaborative and Cleveland network were limited to upscale restaurants that had been specifically targeted. Restaurants participating in these networks generally seemed better able to discuss their food purchases. Members of the Chefs Collaborative were proud of the program and commented on its ability to improve access to local food sources. However, they still voiced the same concerns and frustrations as other restaurants stating reliability and quantity to be an issue.

**Defining Local and Organic**

Interviews revealed the word local and organic have fluid definitions. Initially some respondents did not differentiate between a local distributor and locally grown foods. Some respondents claimed to ‘purchase local’ from a regional independent distributor or from a large distributor (e.g. Sysco or Gordon Foods) widely known not to source local products. Further elaboration detailed some respondents did not know where these distributors sourced their food from, but they were sure some of it must be local, though they never asked. Products said to derive from these sources were not considered local according to survey criteria.

All categories of food buyers expressed fluid definitions for local and organic. None of the respondents provided a clear understanding of the new National Organic Program (NOP) rules. Retail outlets had a better grasp of NOP rules and regulations due to stringent in-store handling laws. To prevent contamination, stores must maintain strict separation of organic from non-organic foods (USDA 2002). Retailer respondents voiced mixed reactions to the high time and labor required to maintain organic inventory. The majority recognized the demand for organic products was great enough they were willing
to make any necessary modifications. Some stores set up separate display cases for organic and/or were moving away from bulk-bin items. Retailers demonstrated a preference for plastic clamshell packaging or pre-bagged items that satisfy consumer’s need for convenience and prevent in-store non-organic contamination. As local and organic agriculture is generally associated with better health and a cleaner environment, it may be necessary to question the environmental benefits of using large volumes of non-recyclable plastics often associated with other types of environmental pollution.

Current Perceptions and Purchase Patterns

Chefs and retailers alike reported there is a “dramatic difference between locally grown and mass produced foods” often adding, “I don’t like industrial fields.” Respondents expressed high support and demand for local, organic and sustainably grown foods:

- 72 percent reported purchasing some locally produced foods, 55 percent purchased some organic foods.
- 90 percent want to increase local food purchases, 50 percent want to increase organic purchases.
- 32 percent reported a willingness to pay up to 10% more for locally grown organic foods if quality attributes of freshness, taste, texture and color were present.
- 12 percent of respondents have a relationship with a farmer and are actively picking out produce seeds and/or livestock breeds together.
• 13 percent of respondents are driving between 5 to 250 miles for on-farm pick-ups.

Statistical analysis revealed a slight correlation between the “type of outlet” and “volume of organic food purchased” (Crammers V = .300) and a slight correlation (Crammers V = .269) between “type of outlet” and “purchasing local foods” (Table 5.1)

A core minority of 14 respondents in various regions were identified as individuals dedicated to working one-on-one with farmers. However, the desire to have a relationship with a farmer or purchase local and organic food was not unique to this core group. Indeed the majority of respondents expressed a preference for foods grown by a farmer they knew with minimal inputs, but felt constraints of time, labor, access to information, distributors, consumer awareness, and price structures inhibited them from purchasing.

<table>
<thead>
<tr>
<th>Outlet Type</th>
<th>n</th>
<th>Purchase Organic Foods</th>
<th>Purchase Local Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restaurant</td>
<td>68</td>
<td>56% (38)</td>
<td>75% (51)</td>
</tr>
<tr>
<td>Independent Grocery</td>
<td>22</td>
<td>42% (9)</td>
<td>57% (12)</td>
</tr>
<tr>
<td>Chain Grocery</td>
<td>6</td>
<td>100% (6)</td>
<td>50% (3)</td>
</tr>
<tr>
<td>Co-op</td>
<td>4</td>
<td>100% (4)</td>
<td>100% (4)</td>
</tr>
</tbody>
</table>

Table 5.1: Percentage of respondents purchasing organic and local foods
Overall 90 percent of respondents agreed local produce tasted superior to imported produce. However, respondents were hesitant to blankly state ‘all local’ or ‘all organic’ food tastes better. Chefs and retailers were cognizant that quality was contingent on season, climatic conditions and individual growing styles. Respondents (especially independently owned businesses) valued knowing who had the best products and having a relationship with that individual rather than simply having ‘local’ or ‘organic’ foods as mere labels. Respondents preferring local foods, chefs in particular believed local food “tastes better when its hand crafted.” Many chefs said the popularity with local produce for them was rooted in taste. Restaurants also value high quality ingredients because of their ability to satisfy customers. One chef called attention to the merits of local food by stating,

“When we serve local food we don’t have a problem with food coming back to the kitchen and being thrown away – it’s a tribute to the food. We don’t need to rely on salt and spices to mask the fact there is no flavor to the food, instead we use good quality ingredients that have lots of flavor.”

Restaurants felt their ability to purchase local or organic food was constrained by their customer’s lack of interest. One respondent revealed “people don’t recognize or see local foods enough in the restaurant to make it important, and customers never ask where there food is coming from, it’s not important to them.” However, restaurants and retailers were generally aware of variations in production techniques often stating “I am concerned about fertilizers and chemicals.” Those respondents that had a personal relationship with the farmers they purchase from felt comfortable with the range of growing methods employed. One grocery store produce manager illuminated “I go out and visit all the farms I buy from, I have dinner with them and stay at their houses.
Farmers are more concerned about the use of fertilizers and pesticides than we are. They’re conscious of their use and conform to all federal rules.” Retailers also revealed customers preferred not to buy food from Mexico, Central and South America. Retailers believed customers perceived the growing practices (including organic) of these countries to be less safe and less regulated compared to domestic and European foods. Retailers echoed each other stating “Our customers don’t want to buy from Mexico or South America because they think the standards outside the US might be compromised.”

Actual Purchases of Local, Organic and Locally Grown Organic Products

While Ohio does not have a year round growing climate, farmers do have the ability to utilize season extension techniques with greenhouses and cold frames. Furthermore meat and dairy products are able to be produced year round. A series of questions were designed to understand how seasonal fluctuations impact the use of local foods and to what degree local farmers are using season extension techniques. Respondents were asked to list the percentage of local, organic and locally grown organic produce, meat and dairy products they purchased in the spring, summer, fall and winter. Frozen, processed, and dry foods (grains, oils, and sweeteners) were not included as results in this survey except as anecdotal evidence.

Produce

All respondents voiced the highest use, demand, and interest for local and organic produce compared to meat and diary products. Produce purchases in the categories of
local, organic and locally grown organic ranged from 0-100 percent. On average these products accounted for less than 30 percent of a respondents total produce inventory (Fig 5.2). Local produce purchases fluctuated with the seasons, summer the peak of harvest followed by autumn, spring and winter. Local and organic purchases followed the seasonal trends that dictate availability. Organic produce purchases remained fairly constant throughout the year because restaurants and retailers dedicated to stocking organic would source products from outlets able to provide year round supply. Locally grown organic was the smallest category due to limited volume, although its use was fairly consistent.

Quantitative and qualitative data indicate few Ohio farmers are utilizing season extension techniques that could increase their share of the produce market. Surveys revealed 27 percent of respondents purchase from farmers using season extension techniques. Both restaurants and retailers indicated if local produce was available they would purchase it and praised the potential of season extension techniques. Several restaurants demanded to know why more farmers weren't using greenhouses during the winter months citing the success of Elliot Coleman (1999) and growers in Maine to obtain a four season harvest. Thirty-seven percent reported purchasing hydroponic vegetables. Many respondents were unfamiliar with the term hydroponic and appeared to report on purchasing behavior without having full information on produce origin.

Restaurants had mixed reactions to hydroponically grown vegetables. Some claimed not to use any hydroponic produce claiming no flavor and low quality. Overall, a clear market exists for a wide variety of year round produce grown with inexpensive low-tech
greenhouses, root cellar storage or transformed into value added products through canning freezing and dehydration.

Respondents voiced a need for larger volumes of produce, varietal diversification and seasonal extension. Respondents most commonly purchased tomatoes, corn, green beans, cucumbers, green peppers, and summer squash from local farmers. However, restaurants requested more farmers to grow a wider diversity of crops to include: baby vegetables, heirloom variety vegetables and fruits, herbs, berries, stone fruits, salad greens, micro-greens, sprouts, and exotic mushrooms (see Appendix A for a complete list of vegetables and fruits). One chef indicated he was purchasing herbs for $12 a pound from his distributor – but he would prefer to be paying a local producer instead. The same chef welcomed the idea of a relationship with a local farmer stating, “I would love for a farmer up the road to grow all my spinach and tomatoes for the season. But he needs to come early in the season so I have time to prepare my menu and plan around the harvest.”

Country clubs are a potentially important and lucrative direct-to-restaurant outlet that has been unexplored. Interviews revealed country clubs are a distinct phenomena because they have a continuous stream of educated wealthy clientele. A country club chef reflected on his interest in purchasing local foods

“"I would love to buy local produce, dairy and meats but no farmers have ever approached me. Country clubs have a captive audience so we’re under constant creative pressure to come up with new and different meals. This would be a good match for a farmer with high diversity crops. In every region of the state there is a country club managers association. Any farmer is welcome to come and approach the association or any individual chef.”
All respondents claimed they could not keep up with the demand for local fruits in stores and as menu items. Retailers reported "as soon as local fruit hits the floor it's gone, I can't keep it. I need more." All respondents commented on the ability of local produce to maintain freshness over longer periods of time compared to mainstream produce that commonly travels 13,000 miles over a weeks time (Pirog 2002). A number of chefs and retailers commented on the increasing customer demand for Edamame (edible soybeans). While a few small scale organic market growers are selling fresh edamame at farmers markets the vast majority is currently sold in frozen food sections imported from the Peoples Republic of China and Taiwan. One produce manager (located in Ashland, Ohio) goes through two cases of frozen Edamame a week asked, "Why are we getting soybeans from China when the fields surrounding this store are full of soybeans."

![Figure 5.2: Average Percentage of Seasonal Produce Purchases](image)

<table>
<thead>
<tr>
<th>Season</th>
<th>Local</th>
<th>Organic</th>
<th>Local &amp; Organic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>7.6</td>
<td>11.02</td>
<td>6.11</td>
</tr>
<tr>
<td>Summer</td>
<td>24.67</td>
<td>11.32</td>
<td>6.81</td>
</tr>
<tr>
<td>Autumn</td>
<td>20</td>
<td>11.22</td>
<td>7.18</td>
</tr>
<tr>
<td>Winter</td>
<td>4.15</td>
<td>10.86</td>
<td>5.68</td>
</tr>
</tbody>
</table>

Figure 5.2: Average Percentage of Seasonal Produce Purchases
Meat

Meat (including beef, poultry, pork, lamb and game animals) is a complex food group subject to demands of uniformity and taste. Purchases of local, organic and locally grown organic accounted for 0-100% of inventory, with an average of less then 10 percent (Figure 5.3). Larger retail outlets were more likely to purchase organic meat from a distributor, while co-op stores and restaurants tended to purchase local and organic meat directly from a farmer. Small natural food stores and co-ops that did purchase these categories of meat did so approximately one to two times a month and kept products frozen due to low turnover. Restaurants predominantly relied on a distributor for all meat products. Restaurants and retailers were generally able to report the brand and state origin for their poultry and pork products but were less likely to know where their beef came from. There was a consensus amongst respondents that local meat has a great deal of variation in flavor, “it’s very difficult to get good flavored meat with the right consistency and balance of flavor, which does not make the customer very happy.”

The majority of respondents preferred purchasing beef and pork through mainstream channels feeling the difference in taste compared to price was not worth the added expense of local or organic meat. Three restaurants reported purchasing meat direct from farmers. Retailers kept minimal amounts of organic meats on hand for customers they identified as small niches. Natural food groceries noted there was a higher demand for beef and meats grown without antibiotics or hormones, and processed without additives or preservatives than strictly organic.
Figure 5.3: Average Percentage of Seasonal Meat Purchases

**Beef**

Restaurants indicated most customers go out to eat as a special treat and prefer to order select cuts of well marbled meat. Therefore restaurants need to stock high volumes of steaks, T-bone, rib eye, sirloin, NY strip, and filet mignon. The high demand for select cuts poses an obstacle for producers independently producing small numbers of livestock for the restaurant market. Retailers are better able to take advantage of the whole animal because home cooks are more likely to utilize select cuts, less expensive cuts and hamburger. Some restaurants that need a steady supply of select cuts were interested in purchasing locally, however, only one had been approached by a group of farmers working together to *specially service* restaurants. Restaurants added their customer's
lack of interest in meat production was an additional barrier to purchasing local and organic beef (note this research was conducted before mad cow was identified in Canada or the United States).

Growing methods can also influence the taste and tenderness of the meat. Retailers reported a high demand for grass fed beef amongst customers interested in the associated health benefits. Many chefs reported experimenting with grass fed beef but found customers reacted negatively to the meat claiming it was too tough and gamey. Differences in fat and marbling require a different set of cooking techniques (primarily slow cooking and braising) compared to grain fed beef. One high end restaurant distinguishes his menu by using grass fed Australian and New Zealand lamb off-cuts cooked by slow braising thereby creating unique dishes craved by adventurous diners. Respondents reported that currency exchange rates favored Australian and New Zealand lamb over domestic. (The case of lamb will be further discussed in the ethnic market section.) The restaurant trend away from grass based meats was echoed by the Fancy Meats of Vermont (Rartliff 2002). Fancy Meats are a group of Vermont farmers cooperatively organized to raise, process, market and deliver lamb, pork, and a variety of bird meat to high end restaurants in Boston and New York City. While grass remains an essential part of their grazing system the farmers do incorporate grain to achieve restaurant standards.

A series of strategies could be employed to create market opportunities for grass based beef.

1) There are restaurants currently purchasing varying volumes of beef, lamb and pork from local and organic producers. These growers have high quality products exhibiting
the desired attributes. Resources are needed to support these farmers to act as mentors and models for farmers considering entering these markets. 2) Sponsor and promote educational opportunities exposing chefs and retailers to the merits of grass-based meats and how to cook them. 3) Growers can incorporate a grain diet just prior to the processing date in order to create the flavor and quality restaurants prefer. 4) Until this new market can be cultivated grass-based farmers may find it more profitable to concentrate on direct to customer sales.

**Poultry**

Respondents were more likely to purchase locally raised chicken than any other meat product. Restaurants and retailers preferred poultry raised on a vegetarian diet, without antibiotics, processed without added water and, when possible, free range. These attributes were often noted on restaurant menus or in store signage. Restaurants and retailers alike would use the description ‘Amish Chicken’ to convey a type of production method distinct from mainstream producers like Tyson and Purdue. However, the term ‘Amish Chicken’ was not clearly defined, and seemed to insinuate a ‘natural’ bird but with no other references to growing practices and definitions. Restaurants and retailers preferring more ‘natural’ chickens purchased the majority of poultry from Bell and Evans (based in Pennsylvania), and Gerber Chicken (based in Kidron, OH) both accessed through a local distributor. Co-ops and small independent grocery’s were most likely to purchase locally grown free range and organic chickens direct from a farmer.
Processing

The predominant obstacle prohibiting farmers from entering local meat markets is the absence of state and federally inspected processing facilities. The lack of processing facilities is compounded by a complex set of state and federal processing laws. Respondents seemed to be confused and in some cases misinformed in reference to the legalities and liabilities associated with each set of inspection standards. Retailers appeared to be satisfied with state inspected facilities, while restaurants required USDA inspection. The vast majority of restaurants would not purchase or serve meat without a USDA inspection sticker believing the liability risk was too great. These issues frustrated chefs who would prefer to purchase direct from farmers and establish a relationship to develop meats suited to their tastes and preference. For example one chef is working with a group of poultry producers to enhance the flavor of meat through diet by customizing feed to include a variety of herbs. Chefs that were interested in purchasing direct from the farmer insisted on personally inspecting processing facilities to ensure all safety and health standards were followed.

The absence of local and organic processing facilities in Ohio has created a crisis for local producers. To truly be competitive in the restaurant and retail markets growers will need to aggregate and organize themselves into groups that will maintain a set of standards addressing: genetics, feeding, raising, processing, delivery systems and cost structures. Regardless if growers are interested in selling to restaurants, retailers or direct-to-consumers, processing laws and regulations need to be redefined to create opportunities for small and independent farmers.
The meat market in Ohio is not limited to beef, poultry, lamb and pork. Another option farmers could consider investigating is rare and heritage breeds of common meats in addition to exotic game and wild meats such as buffalo, rabbits, quail, poussin, heirloom roosters, guine hens, duck (english campbells, wild mallards, french duclairs). Restaurants and retailers tend to sell a smaller volume of these meats, but due to their uniqueness they catch a higher dollar. Furthermore, the production and delivery demand may be more easily handled by a single farm or a small number of farmers working together compared to the demands of beef, chicken and pork. However, the cost of raising and distributing these products will vary based on individual production and marketing schemes.

**Dairy**

Respondents reported local and organic dairy inventory ranged from 0-100% while locally grown organic dairy purchases ranged from 0-25%, on average these products accounted for less then 10 percent of inventory (Figure 5.4). Purchasing dairy items (including milk, eggs, butter and cheese) was uniform across the seasons as dairy is a year round product. However, the category of local diary proved to be a confusing subject for many restaurants and some retailers. Respondents generally reported sourcing generic milk, eggs, and butter from the local dairy distributor but were not sure of product origin. Organic dairy sections had a small number of locally raised and processed milk, butter and cheeses. For the most part organic retail tended to be dominated by out-of-state Horizon and Organic Valley brands.
All interviewed retailers stocked at least some Ohio eggs. Egg labels could be divided by: generic in state, generic out-of-state, Amish, free-range, local organic, and out of state organic. Co-ops, natural food grocery stores and smaller retailers reported having a core group of customers dedicated to organic eggs and free-range eggs. Free-range eggs tended to outsell organic because customers perceived them to have the same attributes as organic but at a lower cost. All retailers suggested customers prefer local eggs citing their perceived freshness. Restaurants were less willing to spend ‘direct from farmer’ prices on eggs, butter, milk and cream. Restaurants serving lunch and dinner generally only use minimal quantities of dairy products, compared to establishments serving breakfast or baked goods. A minority of restaurants with a strong commitment to organic and local or those specializing in baked goods, felt the premium quality of local
organic milk, cream, butter, organic and/or free range eggs enhanced their foods to such a degree they were willing to pay the price. Some restaurants, even those dedicated to purchasing local foods, were concerned about salmonella risks associated with unpasturized eggs or with eggs not delivered by a distributor with a reputation they could trust. Even though these chefs recognized the chances of contamination were miniscule many felt the potential liability to the restaurant was too great. As in the case of organic and local meat, farmers may find the most success and profitability in pursuing direct to customer or direct to retail markets.

Chefs and retailers alike vocalized a strong demand for more artesinal Ohio cheeses. Cheese plates featuring artesinal soft and hard cheeses accompanied by fresh fruits and wines are a dining trend quickly diffusing in from the coasts to the Midwest (see attached Appendix C). Chefs commented that Ohio cheeses are currently dominated by a heavily processed taste and texture. At present, only three cheese makers producing goat cheese, feta and camembert for market have been identified (coincidentally all use organic milk). However, lack of support dollars combined with many of the current laws and regulations inhibit potential producers and cheese makers from exploring this market.

The traditional refrigerated dairy section is increasingly being dominated by non-dairy soy and rice beverages. A boost in soy beverage sales is the result of increasing lactose intolerance found in children and older adults combined with the perceived health benefits of soy among the middle aged population. Retailers may offer up to 20 different choices of refrigerated dairy alternative beverages alone. The interest in soy and organic soy products has great market potential for Ohio's farmers based in grain, corn and soybean rotations. Although the interest in Ohio grains was not specifically surveyed in
this study, retailers noted an increase in non-wheat and non-gluten food sales due to an increase in allergies and health related complications.

**Ordering Systems and Technology**

All of the respondents employed multiple distributors utilizing each for specific products. Respondents indicated while a local foods distributor need not provide all possible products, they do need to carry a comprehensive variety of choices or specialize in a few select premium products. The rise of internet technology has pressured farmers to develop web sites and shift to on-line ordering systems (Just and Just 2001). However, while respondents reported using the internet for research, only five percent of respondents indicated they would like to make their purchases over the internet. Respondents emphasized the importance of speaking with a live person and having some sort of relationship with their supplier. The vast majority, 95 percent of respondents preferred a phone and fax ordering system.

Respondents were inclined to prefer a system where farmers or a distributor faxes an availability and price list each week to the potential buyer. Some respondents preferred the seller to follow up with a phone call while others preferred to personally initiate the ordering process with a phone call. All respondents preferred to be called in the afternoon hours, restaurants preferred to be called after lunch and before dinner between the hours of 2-5 pm. Boxes and packaging account for a considerable percentage of production and delivery costs. In order to alleviate that cost, 89 percent of respondents claimed the ability to accommodate reusable boxes for farmers and actually preferred to because it reduces their waste disposal costs.
All respondents demonstrated flexibility stating a mutually agreeable ordering system would be easy to work out when the opportunity arose to purchase local products. Having a web site may increase the chances of being contacted by a buyer, but maintaining a customer will require personal interaction. A phone and fax system may mediate some impediments buyers have faced when trying to reach growers across e-mail. There have been reports of farmers who have given out an e-mail address but never check their e-mail. After several attempts through e-mail, buyers finally call the farmer only to hear “e-mail is not a good way to get a hold of me, I never check it.” Seemingly harmless mix-ups may cost a farmer an important buyer. Therefore it is necessary for growers and distributors to create clear and honest communication channels.
H2. Purchasing criteria is dependent on the instrumental values of social relationships, taste and convenience rather than price

Purchasing Criteria

Informants were asked to rate the importance of taste, convenience, and price, on a scale of “one” to “five”, where “one” was most important and “five” was the least important. Using the same scale respondents were also asked to rate how important the label “organic”, the label “local” are to their customer (Table 5.2). Restaurants and retailers alike reported purchasing primarily by taste with price and convenience being on equal footing. Results indicated restaurants primarily purchase by taste because “good meals start with great ingredients.” The category ‘price’ seemed to represent a black and white area for some and a gray area for other respondents. Regardless if a respondent was in the expensive, moderate or inexpensive category some individuals were only interested in the bottom line cost, while others were more tentative, commenting “I want the best price for the best value.” In general, the more expensive restaurants could afford to be less influenced by price, and were willing to pay premium prices for unique products. These unique products act as a draw for customers looking for new and different dining experiences.

On average the label local was rated more important than the label organic to the customer. Co-ops were the one exception to this trend. Co-op retailers felt their stores were built on the foundations of organic, and believe customer’s predominant interest was in organic foods followed by local. Retailers and restaurants tended to avoid the
<table>
<thead>
<tr>
<th>Outlet Type</th>
<th>n</th>
<th>Taste</th>
<th>Convenience</th>
<th>Price</th>
<th>Label Organic</th>
<th>Label Local</th>
</tr>
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<tr>
<td>Restaurant</td>
<td>68</td>
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</tr>
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<td>2.09</td>
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<td>3</td>
<td>3</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Co-op</td>
<td>4</td>
<td>1.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.25</td>
<td>2.75</td>
</tr>
</tbody>
</table>

Table 5.2: Respondent Purchasing Criteria and Perceptions of Customer Values

word natural, believing the word has no cohesive definition and could not convey much about the value of a food product.

Respondents voiced mixed reactions towards foods made from genetically modified organisms (GMO’s). Some respondents voiced extreme negative reaction towards these foods while other respondents had more mixed and ambivalent feelings. Restaurants and retailers stated “we are responsible for the food we serve”, individual morals and values combined with concerns over potential food allergies led 79 percent of respondents to demand GMO foods to be labeled.

Distribution

There was a high level of trust in farmers to produce quality products. The majority of respondents in each category claimed to be interested in creating a relationship with a farmer but clearly preferred to purchase through a regional distributor.
(Table 5.3). This pattern of preference was most obvious among restaurant respondents who often stated "I like knowing the individual farmers but the less ordering I have to do the better. I prefer to get to know people on an individual basis, but also if one person is able to consolidate multiple orders from one area for delivery that's good."

A group of respondents, particularly higher end restaurants extremely dedicated to local and organic foods considered distribution an important issue but not a paralyzing one.

"Farmers have more flexibility than distributors and tend to treat me better because of those relationships. I work with a half dozen farmers very closely and a dozen less closely. Farmers give me a schedule to show when seeds are in and anticipated harvest date, so I can create a menu around that time. Convenience means nothing to me because this way of ordering is the least convenient."

Other respondents, both retailers and restaurants are limited in their ability to purchase local and organic because they have no access to products and/or do not have the time or staff to frequent farmer's markets.

"It's getting harder to have regional foods; the smaller guys are getting gobbled up. I want to keep my business in the state and help the local businesses. I prefer local but the problem is I'm a small business; I don't have the time to go around to all the different farmers. We need a distribution system."

"It's easier to deal with someone who can source products. I want to know where the food comes from so when I drive around I could talk to the farmers. But because of time I can't be out sourcing...We like to order through farmers and a distributor. But ordering from a distributor is easier, primarily because of billing and accounting."
<table>
<thead>
<tr>
<th>Outlet Type</th>
<th>n</th>
<th>Trust Farmers to Produce Quality Products</th>
<th>Interested in Creating a relationship with a farmer</th>
<th>Prefer to Purchase Direct from Farmer</th>
<th>Prefer to Purchase from an Ohio Regional Food Distributor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restaurant</td>
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<td>83%</td>
<td>73%</td>
<td>32%</td>
<td>83%</td>
</tr>
<tr>
<td>Independent Grocery</td>
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<td>77%</td>
<td>68%</td>
<td>52%</td>
<td>52%</td>
</tr>
<tr>
<td>Chain Grocery</td>
<td>6</td>
<td>75%</td>
<td>50%</td>
<td>5%</td>
<td>90%</td>
</tr>
<tr>
<td>Co-op</td>
<td>4</td>
<td>75%</td>
<td>100%</td>
<td>85%</td>
<td>85%</td>
</tr>
</tbody>
</table>

Table 5.3: Respondents Trust in Farmers and Interest in Varying Distribution Systems.
Generally growers aren't able to put the logistical aspects together — a distributor is able to. “We need someone that networks with individual farmers that would increase the continuity and dependability of local products. Chef’s Garden is great but I can't maintain the costs.”

“We purchase through conventional suppliers because that facilitates things, they’re reliable, and have high quality, responsible, good bookkeeping. Makes life simple. But it’s mostly processed food. None is organic. We could get good food from local places, but it's not convenient.”

Restaurants have limited space and generally operate with small refrigerators requiring frequent deliveries of relatively small quantities. Typically restaurants would state:

“I have a tiny cooler, I need deliveries every day and [my distributor] can do that for me. Most of my day is spent cooking. I don't have time to hunt products down...I need a distributor who can coordinate small quantities of multiple ingredients. Growers need to hook up with the suppliers.”

One large national natural foods chain that had been committed to purchasing locally revoked that policy in order to streamline store operations. A representative stated:

“Corporate headquarters says we have to source all products from our main distributor with only a minimum from local farmers. Those local farmers have to be approved by corporate headquarters. This is all because it was taking too much time to buy and not enough attention was given to the store.”

The reluctance to deal with multiple small growers was echoed by smaller locally based stores. The following quotes clarify the realistic operating conditions these stores operate under:

“We have two other stores, the produce buyer buys for all the stores at once. We want uniform product at all the stores. So we want quantity and quality at all of them. Even though we order from individual farmers a distribution service would be better.”
“We are trying to streamline the number of purveyors we use. So ordering from individual farmers would not be in line with those goals.”

Retailers generally preferred to deal with larger volumes of staple produce items such as tomatoes, corn, strawberries, squash, pumpkins etc. These retailers appeared to be more willing to deal individually with small farmers that produce unusual fruit and vegetables such as heirloom varieties, baby vegetables, specialty lettuce mixes, and exotic mushrooms. These items may have a lower demand but sell at a higher market dollar making their production more compatible for small scale production. This issue of sourcing and distribution was well laid out by one independently owned “old fashioned” full service grocery,

“I have been here 67 years and have established relationships with the growers and our customers. Some people ask about the growing techniques but most don’t, they trust the products. In the summer time I need one ton of tomatoes a week; I can’t be buying small cases of tomatoes. I need large quantities and growers who can supply that. It’s good to see different crops like heirloom tomatoes, people like to have fun with it. Better to grow that if you have small quantities and limited acreage. We put out fliers listing the local produce and the farmer’s names and then we call people when things they want come in. Every year there is less and less produce. One of our strawberry guys sold out. Price is determined by the season and market factors. I don’t compare local to California prices, I compare between local prices.”

Restaurants and retailers also emphasized personal relationships with their distributor was a significant influence in their purchasing criteria. Many had relationships for decades with a distributor and relied on the reliability and quality of products they could provide and were therefore hesitant to switch distributors based on price alone.

Locally owned retail stores tended to have a higher dedication to local foods, particularly produce. These stores made a real effort to purchase local foods by sending
their trucks to pick up food. A local large-scale natural food store in Cincinnati and Akron regions dispatch semi-trucks two to three times a week to source local foods throughout the northeast and north central regions. These stores purchased from individual farmers and produce auction houses such as Mt. Hope up to four times a week.

"Right now we buy from a big natural foods distributor for our organic products because they aggregate it all and distribute. In season we send our trucks to the Mt. Hope produce auction because they've got great quality and values. People love it when we put homegrown Amish on the signage."

**Reliability**

Retailers and restaurants voiced the need for reliability. While the majority of respondents with relationships with local farmers spoke very positively of them, many voiced frustration with farmer reliability. "I love working with local farmers but they need a reliable distribution system." One chef commented "I've tried to work with individual farmers but they've disappointed me. They can't commit. I tried to get Edamame and purple basil from one farmer. He agrees and then disappeared. I prefer local but I'm skeptical. I need regularity." Co-ops and natural food stores reinforced this issue by stating "We need dependability—that's a big issue. People with cancer rely on my produce."

The interest in organic and local foods is extremely high but the issue of distribution is one inhibiting rapid market development. The issue of distribution is linked to farm size - how many farms of what size are needed to make up a distribution route? There is a need to explore the links with independent distributors in each of the regions. In every region, restaurant respondents would name the same regionally based
distributors for produce, meat and dairy products. Some of the produce distributors carried local and organic foods, others did not. Even among those that did carry local foods, restaurants had a higher demand than the distributor could provide. There also appeared to be somewhat of a disconnect between distributors realizing the actual demand for local produce and their ability to satiate that demand because either 1) they do not realize how high the demand actually is, or 2) Distributors do not have an adequate supply of local foods or they do not know how where to find farmers. Furthermore, surveys revealed individuals do not realize there are any Ohio organic producers, or that the producers are looking for markets. This issue is further complicated by the fact that some University Extension and government officials do not realize organic production is possible in the state and are unaware of any resources to refer potential customers or interested farmers to.

**Alternative Options for Distribution**

Within each region interviewed, restaurants tended to use the same local suppliers for their produce, meat and dairy products. Growers could partner with existing regional distribution services as a strategy to bridge the distribution gap. This relationship benefits the distributor as it provides a means to diversify their product line and increase their competitive niche. Examples of such partnerships can be found in The Food Alliance based in Portland, Oregon which has successfully linked growers with regional distributors and retail outlets throughout portions of Northwest and Midwestern states.
H3. The degree of signage on shelves, menus, and personal interactions is dependent on the degree of steady flow of organic and local food resources.

Transferring Information to Employees and Customers

Restaurants and retailers convey information to their customers through signage on shelves, menus and personal interactions (Table 5.4).

Signage

Respondents claimed that unless customers were educated about local and organic products they were less likely to purchase them. In both cases of organic and local, restaurants were the least likely to highlight these foods on their menu, however this also varied by product category. Restaurants purchasing organic and local produce direct from farmers were unable to rely on a consistent supply; one chef declared “We don’t have the guaranteed flow of ingredients so we don’t put these things on the menu. If we did and then needed to substitute that would be considered false advertising. So we just feature these items in specials.” Restaurants that printed up a daily menu or used a black board menu were more likely to highlight organic and local foods. Restaurants primarily used the limited available volume of local produce (organic or not) strictly for specials promoted by the server or would incorporate them into dishes without making any special note. One Cleveland Subway Sandwich shop took great pride in using local tomatoes but never advertised this fact to customers. Local and organic poultry were the most common menu item featured by restaurants. Larger scale local and organic poultry producers highlighting antibiotic free ‘all natural’ chicken have been able to meet the
quality, quantity and demand flow of restaurants and retail outlets and are commonly featured in all outlets.

Restaurant respondents were more likely to deal with small diversified farmers with limited seasonality and volume. This relationship contributed to low levels of signage for organic and local produce among restaurant respondents. Food retail outlets were more likely to advertise organic and local because they generally deal with suppliers that can guarantee them a steady year round flow.

Restaurants have undertaken different strategies to promote local and organic foods. A restaurant in Cincinnati that places high emphasis on local and organic foods sponsors an annual all-Ohio week. Immediately after being seated customers can view a table-set menu featuring Ohio foods, the farms and farmers. The chef reported,

"During that week we sold out of the all-Ohio meals every night. It was so popular we decided to transfer some of those dishes to our regular menu. Funny thing was, when we did that, even when they had the same description the meals wouldn't sell. We can't figure it out."

Simultaneously some chefs took a more moderate approach to educating customers stating "we don't want to overload the customer with too much information and push things on them. Some of them don't want to know." Other chefs echoed this sentiment stating, "We don't highlight food as organic. A small group of people are interested and when they ask we tell them. The majority of people are looking at price first."

Food retail stores do not have the constraints of a menu, with shelf tags signage is easily added or removed. Local food signs were rarely marked by professionally printed labels. Most often handwritten cardboard and magic marker signs were used to highlight local produce. The majority of organic foods in retail outlets were purchased from large
distributors, arriving in a polished pre-packaged and pre-labeled form. Larger retail outlets featuring organic foods employed large banners demarcating organic fresh and frozen sections (Fig. 7). One retail outlet focusing on local and organic produce explained "We do a lot of on the floor interaction. We're going to put up posters explaining seed varieties, print up cards and we present a lot in person." Although Co-ops were more likely to purchase locally grown foods, they placed less emphasis on 'local' signage sensing their customers cared more about organic than local. A Toledo co-op reported:

"Lots of customers come in because of yeast allergies and health problems related to the environment and overuse of antibiotics. Customers primarily want organic, so even though we do purchase locally grown organic foods, we don't do a lot with the local component."

<table>
<thead>
<tr>
<th>Outlet Type</th>
<th>n</th>
<th>Advertise Local</th>
<th>Advertise Organic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restaurant</td>
<td>68</td>
<td>41% (28)</td>
<td>28% (19)</td>
</tr>
<tr>
<td>Independent Grocery</td>
<td>22</td>
<td>54% (12)</td>
<td>40% (9)</td>
</tr>
<tr>
<td>Chain Grocery</td>
<td>6</td>
<td>75% (4)</td>
<td>75% (4)</td>
</tr>
<tr>
<td>Co-op</td>
<td>4</td>
<td>75% (3)</td>
<td>100% (4)</td>
</tr>
</tbody>
</table>

Table 5.4: Percentage of Respondents Advertising Available Local and Organic Foods
Verbal Communication

Selling a meal or a product is contingent on the ability of staff to articulate the characteristics and traits of a food item in order to assist customers in making an informed choice. The better educated and excited a staff is about a product, the better able they are to transfer enthusiasm and information to the potential customer resulting in increased sales. One chef claimed "I increased sales of goat cheese by eighty percent once my staff started eating it and promoting it to the customer."

Restaurants and retail outlets were asked if and how they verbalize the definitions and characteristics of local and organic foods to employees and customers. Combining restaurants and retail outlets, 42 percent of respondents claimed to review ‘local’ with employees and 47 percent tried to educate customers. In regards to organic, 37 percent of respondents claimed to both converse and instruct employees and customers. The decrease in organic guidance corresponds to the smaller number of outlets handling organic and the confusion surrounding the term organic as discussed earlier. Respondents indicated it was easier to communicate the advantages of local (regardless if organic or not) because of the difference in taste and quality readily apparent with fresh in-season foods. Some respondents provided intensive trainings for kitchen-staff, wait-staff, managers and floor-staff.

Restaurants and retail outlets reporting a higher usage of local foods were more likely to visit a farm and spend time educating their staff about the importance of local and/or organic. Six of the chefs and two of the retail outlets reporting a high use of local foods, scheduled employee farm field trips. Respondents explained that field trips were intended to cultivate a personal relationship with the farmer and develop an enhanced
understanding of the food they handle. Furthermore many restaurants and retailers are required to be better educated in order to serve an increasing number of guests with dietary restrictions and food allergies.

The vast majority of respondents including those highly engaged with local and organic food issues stated they are unable to provide their employees with the proper training and background due to time constraints. Retailers are less likely to educate customers when there is high staff turn over (common at larger chain markets), and time is allocated to managing stock and daily operations. Employers expressed some concern over the deficit in training with regards to regulations associated with the new NOP laws. One retailer suggested the best way to educate customers about local and organic foods is for farmers and organizations to come in themselves, "We'd love for farmers to come in and demo their product. The less time and labor we have put in the better. Every year Chiquita sends their banana lady around to demo, people love it and we don't have to do anything."

Interviews revealed food buyers' purchasing habits were impacted by customer demands and awareness. Respondents emphasized their frustration with the fact customers have come to expect aesthetically perfect foods. One retailer offered this view. "Educating the customer is very difficult. Unless they meet the farmer and see how he thinks, they don't really understand. They walk into the store and expect everything to be perfect, but it really doesn't work like that in real life." The belief that customers truly do not appreciate good food or understand the food system seemed to reverberate through the majority of respondents. There was also a strong belief most of Ohio is
embedded in a “meat and potatoes” culture that has been resistant to change. One respondent succinctly said:

“Most people don’t know enough about produce. The chain restaurants, and national grocers, have dumbed down the consumer so they don’t know what good produce is. They have false presumptions about presentations. Just because it’s available doesn’t mean it’s good and ripe. I don’t want tomatoes and honeydew when they’re not in season.”

Respondents expressed a sense of remorse and regret to this fact. Many respondents felt customer values impaired their ability to purchase and cook the local and organic foods they preferred. In order to create more agricultural opportunities in the state there needs to be an educated public ready to appreciate the taste and flavor of farm fresh unprocessed foods. Preferences for convenience are leading to higher consumption rates of fast food and processed meals. Simultaneously a competing trend to increase the consumption of fresh fruits and vegetables is increasing with an older and more health conscious populations. To try and reverse the convenience trends many of the chefs and retailers interviewed offered cooking classes featuring whole ingredients. One Columbus area chef stated:

“We do cooking classes, we’re constantly educating customers. Promotion is a key too to education. It’s not just about organic, it’s about local organic. Customers come to this kind of a food from a taste perspective; they will only choose these foods with positive reinforcement. If they have a good experience at the restaurant or at the class, then they’ll go out and buy the food for themselves.”

The Case of Restaurants

Purchasing locally grown and organic foods was not exclusive to high-end gourmet restaurants. A number of restaurants interviewed in all price scales had some
percentage of inventory purchased directly from a farmer. These restaurants presented
great pride in their relationships with farmers and in the quality of food they were
purchasing and serving. Most referred to ‘their farmer’ on a first name basis when
describing the products they purchased and the growing techniques used, “I know Mary
does use rotations, and she tells me spinach won't be back in season until the fall.”

Restaurants define quality and make purchasing decisions based on values and
criteria embedded in the food itself. Chefs in general were primarily concerned with the
flavor and authenticity of the food, considering growing practices secondary. “It's more
than the food being organic it's about who made it. We buy from a regional farm that
has quality associated with it.” Chefs in high end restaurants purchasing direct from
farmers were more likely to spend time educating their staff on the ingredients and menu
items claiming “every night we go over the menu and breakdown the ingredients. They
taste the food so they can communicate to the customer what is available.”

Restricted or no-access to local foods was the most common frustration voiced
among respondents. Direct marketing venues, primarily farmers markets and road side
stands have been sited by the North American Direct Marketing Association (2003) as
spaces providing: a place to purchase local foods, develop relationships between growers
and customers, and allow farmers to develop entrepreneurial skills (Fig. 8). In this
survey 46 percent of restaurants and 21 percent of independent grocery stores reported
patronizing a farmers market or roadside stand, while chain grocers and co-ops reported
no activity. A slight relationship existed where chefs owning their own restaurant were
more likely to patronize a farmers market or road side stand compared to non-owners
(Crammers V = .427). Chefs purchasing at a farmers market did not report using higher
volumes of local or organic foods compared to chefs that don’t patronize a market or those that had direct farmer to restaurant deliveries.

Chefs enjoyed visiting the farmers markets because it allowed them to meet farmers and become acquainted with regional foods. However, there was uniform agreement that the majority of markets in regions included in this survey did not service the needs of restaurants the same way the Dane County Farmers Market in Madison, Wisconsin or New York City’s Green Markets could. One chef expressed their dissatisfaction with the farmers markets in Columbus by claiming “The North Market is not a real market, I would like to see one closer to Seattle’s market.” The development of each farmers market is generally dependent on the ability and skill of the market manager. Ohio has a total of 74 farmers markets, only the Athens Market is year round (ODA 2003). In comparison the states surrounding Ohio including: Pennsylvania have (156), Kentucky (86), Indiana (67), West Virginia (24), and Michigan (66) (USDA 2003). Ohio can be further compared to states like Iowa (146), New York (269) and California (365).

Chefs purchasing from farmers markets in each region of the state voiced similar points of contention with farmers markets. Chefs expressed dissatisfaction with low volumes of available produce, narrow variety selection, limited days and hours and lack of time and staff to visit the market. As mentioned earlier sales at a Farmer’s Market are dependent on management, weather, time of year, and conflicting activity schedules. Farmer’s Market sales do pose some risks leading some farmers who sell both at the Farmer’s Market and to restaurants (especially on the same day) to view them as
competing markets. One restaurant dedicated to local and organic food receives local produce deliveries after the Saturday morning Farmers Market stated,

"Sometimes the farmers who sell at the farmers market don't save all your order for you when they're at the market. They sell to the customers who are there. This is a liability to the restaurant because we wind up with leftovers and a short supply of ingredients. I also have farmers trying to undercut each other."

Though this case may not be typical, it reinforces a larger issue of an underdeveloped poorly supported local food system. Farmers pursuing direct-to-customer or direct-to-restaurant/retailer are vulnerable to fragile marketing structures. While direct marketing provides the greatest monetary and social benefits to farmers and consumers there is considerable risk involved. Training workshops, monetary resources and effective policies creating a sound infrastructure and market system need to be cultivated.

**Chef's Garden**

Twenty percent of restaurant’s interviewed purchased produce from the nationally known Chef’s Garden owned and run by Farmer Jones. Chef’s Garden is located in Huron, Ohio and is recognized for year round production of high quality produce often featured in the New York Times and Gourmet Magazine. Farmer Jones employs a field staff dressed in white lab coats and specializes in heirloom varieties and unique custom blends of salad green mixes, micro greens, baby vegetables, vegetable blossoms, and herbs. Produce is delivered throughout Ohio and the United States overnight by Federal Express. Chefs interviewed claimed they were purchasing organic produce from Farmer Jones. While this farm does maintain strict “good for the earth” growing standards, it is
not certified organic nor does it claim to be. Respondents highly praised the high quality unique produce and easy ordering system but were uncomfortable with the costly delivery system on top of high price produce. Many chefs stated they would prefer to have a relationship with a farmer more local to them who could grow similar produce but was less costly. Farmer Jones was contacted but declined to be interviewed for this survey.

Retail Produce

The majority of ‘bagged’ produce originates from large-scale producers in California who are able to provide the labor and equipment needed for such packaging. The trend may limit opportunities for independent local farmers unable to compete on labor and capital investment. One retailer purchasing locally grown organic produce stated,

"Local growers need to learn more about marketability of their packaging. We used to get spinach in bulk and had to spend lots of time and money to package it for the shelf. We’ve finally gotten Harry our farmer to do it for us."

In addition, larger grocery stores require pre-labeled UPC codes on all packaged and bulk foods. The cost of UPC registration and labels may prohibit market entry for small-scale producers.

Other retailers, particularly those close to large natural food supermarkets were less enthusiastic about carrying fresh organic produce. One retailer eliminated fresh organic foods stating “we’re not going to deal with the hassles of organic here, if people want organic they can go two miles up the road and buy at the natural foods market.”
The majority of respondents did not define quality based on growing practices alone. Some stores and restaurants catering to high-end clientele felt they had their own rigorous demands that made certification programs and labels irrelevant. These respondents claimed customers did not ask much about where the food is coming from because “they trust us to source out the best ingredients for them.” One restaurant stated “I have a wide spectrum of customers from hillbilly to top notch. Trying to introduce them to new things is hard. But my customers know me and my history and standards and trust me to get good food.”

Restaurants

Restaurants had a perception of organic but were less aware of regulations and certification programs compared to retailers. Chefs stated they were purchasing locally grown organic foods, particularly produce, but did not know if it was certified organic (Box 3). Few restaurants required a certification label especially when purchasing direct from local farmers, stating, “I trust the farmer I have a relationship with.” Some chefs said they wanted food raised organically without a lot of pesticides and fertilizers but at the same time they understood chemicals may be necessary. A typical chef stated “I want the healthiest, safest food possible without a lot of chemicals or fertilizers. But, I know organic isn’t always the best way to go. Just the way I know the kitchen, I trust the farmer to know what’s best for their land.” The new NOP rules which exempt growers making less then $5,000 from certification and shifting certification patterns contribute to a more fluid definition of organic among restaurateurs and make estimating the actual use of organic produce more difficult to account for.
Ethnic Markets

An unintended consequence of this research was a preliminary examination of the role ethnic markets could have in a local food system. Ohio is home to a diverse range of immigrant communities and ethnic heritage populations, each with a unique food culture comprised of specific ingredients and dietary habits (Census 2000). Interviews included ethnic restaurants and retail markets representing: African-American, Central American, Chinese, East African, Eastern European, Ethiopian, French, German, Italian, Indian, Japanese, Mexican, Middle Eastern, South American, South Asian, Thai, and West African cuisines. This sample was too small to make any conclusive generalizations; however, many of the insights offered highlight opportunities in previously unexplored markets. Further research is needed to explore local and organic food markets for long established ethnic communities such as African-Americans, Germans and Italians in addition to more recent immigrant communities.

Food habits for recent immigrants and specific ethnic communities are different compared to assimilated groups. The 2002 USDA Consumer-Driven Agriculture Report notes it is not yet known how “away from home” food expenditures will be impacted by the increasing ethnic and racial diversity within the US (Ballenger et al.). The USDA notes that immigrants and many ethnic communities historically dine out less frequently and spend less when dining out, instead placing more emphasis on cooking with fresh ingredients and eating at home (Davis and Stewart 2002). The study also sites the increasing number of ethnic restaurants in the US may reflect both an increase in population diversity and an increased demand for ethnic variety by better traveled and wealthier U.S. consumers. While the trend for mainstream America is to eat more
processed and convenient foods, these baby boomers and younger generations value
diverse cuisine and dining experiences as attributes of a good meal. These groups offer
important market potentials for local farmers. Indeed many of the products demanded in
ethnic markets are very similar to those commonly seen in the grocery store but with
slight variations. Each community and ethnic group has different tastes and preferences
indicating varying levels of interest in produce, meat and dairy categories.

Ethnic grocery stores and restaurants in Ohio are generally small scale,
independently owned enterprises. These outlets face different distribution challenges
compared to mainstream groceries. Many of the restaurants and retailers purchase from a
combination of mainstream suppliers like Sysco and Gordon Foods, specialty ethnic
suppliers or will drive great distances to terminal markets to source ‘ethnically
appropriate foods’. Recent immigrants and ethnic shoppers may be primarily concerned
with sourcing affordable familiar foods specific to their cuisine. The organic or local
label may not mean as much to these individuals, however, this does not mean these
individuals do not care how their food was produced or have less of a preference from
where and whom they purchase food. Restaurant respondents indicated “People don’t’
care about local here, they come here for a special treat to try new foods. They eat local
or organic at home.” Ethnic restaurant respondents indicated they sometimes
specifically ordered organic but only by special request. Some restaurants indicated they
would like to purchase locally grown foods and work with local farmers but the issues of
quality, quantity and flow prohibited that relationship. Respondents also indicated local
farmers were not growing the varieties of vegetables and herbs they required.
Meat

Throughout the interview process, respondents showed varying levels of interest in different local food product categories. In one instance while interviewing an Indian/Bangladeshi restaurant, the respondent showed little interest in sourcing local produce or dairy. However, when asked about meat – the respondent became engaged and animated wanting to know where to source halal lamb meat. He stated:

“Our customers only ask about the food to make sure the meat is halal. If a farmers market was closer we would buy from them. The halal meat is a big issue—we would like to purchase direct from the farmer. Right now we buy from Sysco, but who knows if they are keeping our laws. Maybe if the farmer is close we would also like to buy eggplant, cauliflower, green peppers, onions, garlic, carrots, mint, and cilantro. Usually we only go through one box a week.”

The restaurant was currently purchasing Halal goat, lamb, and chicken from Sysco, however, they were not sure if the company was truly abiding by all Halal standards. For this restaurant and its customers it was most important to have a personal relationship based on transparency and trust. For local foods, Halal meat was the “door opener” into this restaurant, additional products were then identified only after the primary interest was addressed. Interestingly, one Middle Eastern market stated, “people only ask about local when it’s about the lamb. Ohio meat has a good reputation like that.”

The demand for goat and lamb meat is not exclusive to Muslim communities. Jewish, Jamaican, Caribbean, and African consumers purchase large volumes of lamb and goat meat. Restaurants and stores serving these communities will drive 2 to 5 and even up to 12 hours to reach markets in Chicago, Detroit, Pittsburgh and New York to
find these meats. On the east side of Cleveland there are a cluster of Middle Eastern retail markets catering to a diverse clientele. One of the markets interviewed provides a wide a selection of fresh and frozen produce, meat, dairy, herbs, spices and prepared foods. This market sells approximately 40 lambs and 40 goats a week. They are currently sourcing lamb and goat meat from Pittsburgh and Detroit; however, they would prefer a more local source. Further conversations revealed the store owners owned a USDA inspected Halal slaughter house in the Akron area. The processing operation is currently closed due to difficulty sourcing stock in addition to human resource issues. Initially the owners tried to source Ohio lambs:

"We would drive around the countryside to the farms looking for lambs and goats, but there weren’t enough so we started going to Indiana where there was a better supply. So we bought most of our stock in from Indiana, but that’s a lot of driving. Right now we’re shut down but we’d like to start up again – do you know local farmers who’d want to sell to us?"

The owners had no knowledge of the Ohio Goat Task Force or the Grazing Council, both farmer based organizations dedicated to creating markets for lamb and goat meat. The task force and council are organizing a network of farmers able to collectively supply the quantity and quality of animals that processors like these would require. The owners also asked about chicken, stating if chickens were hand-killed customers are willing to spend more money for them. Many of the customers from Africa were asking for goats with the skins shaven but still attached. Customers are interested in food attributes not found in mainstream grocery stores and have a market demand that could readily be fulfilled by local farmers. Furthermore the religious importance of Halal and Kosher meat means retailers and customers want to have a relationship with the grower
and processor to ensure standards are being met. These potential relationships create
economic opportunity and social cohesion to create increasingly stable and well
functioning communities.

Interviews on the east side of Cleveland happened to coincide the day after an egg
factory farm expose on Cleveland’s Fox news station. The report showcased video clips
of conditions inside of egg factory farms and the potential health implications. As an
alternative to these eggs, the report showcased a farmer raising free-range eggs. The
market owners stated, “everyone has been coming in to know where their eggs are
coming from, wanting to know if I know the person who raised them, how were they
raised?” The owners were interested in sourcing free range eggs and possibly organic
eggs realizing they cost more than conventional ones. Their customers cared more about
what they were eating and considered price as a secondary factor. The owners were
interested in buying lambs and goats from farmers who “don’t use a lot of junk” to raise
their animals. For this group of consumers quality is not necessarily equated with fancy
packaging and labels but is instead about trust in their shopkeeper, the farmer and food
production standards. While in the store customer conversations were overhead
demonstrating knowledgeable and interested individuals contemplating the relationship
between food and health. Individuals could be heard discussing “the garbage in the food
system causes so many health problems” and looking for medicinal herbs to cure various
ailments. These findings challenge the assumption that organic and local foods markets
only exist among upper-middle class educated professional and correlate with findings of
the Community Food Security (Fisher, 1999).
Produce

As mentioned previously, ethnic retailers and restaurants are driving to terminal markets in Detroit or Pittsburgh to pick up specialty produce and herbs for their communities along with conventional tomatoes, beans, potatoes, onions, etc. Respondents welcomed the idea of fresh local produce especially if it could be delivered or if it was available for pick up with in the region. Local growers are unable to compete with wholesales on price but they can compete with geographical proximity, quality and freshness. These retailers often go through one to five cases of produce a week which would be consistent with the volumes a smaller grower could supply. Small produce growers are typically diversified growing a wide range of crops – this group of growers may be the most likely candidates to start growing for the ethnic market. There may be alternative marketing and distribution arrangements available at these markets. A hybrid CSA or farmer’s market could evolve to provide specific produce needs.

Vegetables and herbs are essential ingredients in many ethnic cuisines. Popular herbs include: cilantro, parsley, mint, basil, rosemary, thyme, oregano etc., each type of herb can be further divided by varieties matched to specific cuisines, for a complete list see Appendix A. Herbs thrive in Ohio’s summer and can be grown year round using season extension techniques and greenhouses. Preferred fruits and vegetables are similar to ones commonly planted for mass market but may be a different variety or require a different harvest period to obtain a preferred size. For example, the Middle Eastern market prefers small round baby eggplants while Asian customers prefer long skinny bright purple, pink and white eggplants. Okra is another case where Middle Eastern markets stock young and short okra while Indian stores purchase longer older okra.
These trends carry over to summer squash, winter squash, celery, greens, legumes, mushrooms etc.

The University of Massachusetts Extension conducts ongoing studies examining ethnic preferences for vegetables at Farmer’s Markets. Researchers identify variety, size, color and taste preferences of vegetables, fruits and herbs found in other cultures and impart this information to local growers. Ethnic consumers are more likely to visit the farmers market and buy corn, beans and tomatoes when familiar foods are offered (Magden 2002).

Many of the vegetables and herbs considered to be “ethnic” have diffused into gourmet circles and are actively sought after by high end chefs. This trend is easily documented with the rise in popularity of fava beans. Fresh, dried and canned fava beans are a staple in Middle Eastern and North African cuisine and have recently been established as a prominent ingredient in the new American cuisine. Fresh fava beans are commonly featured in cooking magazines and in high dollar restaurants along the east and west coasts and are sought after by Ohio chefs. However, few if any local growers are producing fava beans. In Ohio these beans are hard to source and must be shipped in through specialty distributors. This trend is also evident with edamame – edible soybeans from Japan. Edamame is commonly sold frozen in Asian groceries, natural food stores and now is appearing in mainstream supermarkets. During interviews many high end chefs asked for sources of fresh edamame.
Dairy

High quality farm fresh milk (not homogenized) was important for producing homemade yogurt and cheeses. Similar to halal meat, eggs represented another ‘door opener’ into certain markets. Interviews with a Chinese grocer did not provide much enthusiasm for local produce and believed “Ohio growers need to learn much from the growers in California and Canada about growing Chinese vegetables.” However, there was great interest for duck meat and duck eggs. This retailer stated “A local farmer used to come by with duck eggs every week and they always sold out but no one comes with the eggs anymore. Maybe that is one item we’d be interested in.”

In an upscale Japanese market there were three different types of eggs available: a dozen generic Midwestern eggs cost $1.79, a half a dozen organic eggs from California with Japanese writing cost $3.99 and, a dozen eggs raised on a free range, vegetarian diet with attributes explained in Japanese cost $4.99 a dozen. A customer explained her preferences amongst the different eggs,

“I buy the $1.79 Midwestern Eggs when I’m just baking or using them in a cooked dish. But some Japanese dishes include barely cooked eggs and in that case I buy the $4.99 eggs. They must be safer – look they state where they come from and (laughing) at that price it must guarantee some safety and quality. I’m a biologist by training; I know something about food safety.”

Planning for the Ethnic Market

Local farmers may be unable to compete with wholesale prices but they can compete on geographical proximity, quality, freshness and personal relationships. Marketing in other languages is an essential component of ‘door opening’ marketing and
consumer outreach. Ethnic shoppers and non-English speakers may prefer to shop in a community based store and purchase food bearing a label in their native language. Individuals and groups can contact regional community leaders, ethnic heritage groups, and local businesses in order to assess current market needs. Incorporating non-English language creates an opportunity for exchange and community among Ohio’s diverse populations. Additionally, promotion in multiple languages, with advertisements in non-English magazines, community newsletters and community directories can increase attendance at farmers markets, roadside stands and CSA’s. The 2000 US Census data can be used as initial market research tool to assist regional farmers identify ethnic demand centers.
CHAPTER 5

CONCLUSIONS AND FUTURE DIRECTIONS

Discussion of Hypotheses

Hypothesis 1: The volume and frequency of organic and local foods purchases is a function of knowledge about the location of network resources, flow of information, and fluctuating seasonal availability.

The first hypothesis was largely supported. Respondents clearly had greater associations with business and professional associations with few links to production based organizations. All categories of food buyers expressed inconsistent definitions of local and organic. However, the majority of respondents expressed a preference for foods grown by a farmer they knew using minimal inputs, but felt constraints of time, labor, access to supply information and distributors inhibited them from purchasing. Quantitative results demonstrating the fluctuating availability of local produce vs. the year round supply of organic demonstrate that when products are available they will purchase them. Results also demonstrate that consumer tastes and preferences and food safety regulations moderate the interest in purchasing local and organic foods.
Hypothesis 2: Purchasing criteria is dependent on the instrumental values of social relationships, taste and convenience rather than price.

The second hypothesis received mixed support. Results indicated respondents purchase primarily by taste with convenience and price being on near equal footing. The category ‘price’ represented a black and white area for some and a gray area for others, explained by “I want the best price for the best value.” Retailers (except for co-ops) perceived customers to weigh the label local more important than organic. Co-op retailers perceived their consumers to prefer organic over local because of the health concerns related to pesticide exposure. Overall buyers reported a high level of trust in farmers to produce quality products. The majority of respondents claimed to be interested in creating a relationship with a farmer but clearly preferred to purchase through a regional distributor. These results follow assertions by Hinrichs (2000) and Sage (2003) that in individual markets and among individual buyers levels of social embeddedness, marketness and instrumentalism compete to determine the ultimate purchasing decision. The preference for local foods is mitigated by the availability of quality, quantity and flow and by the real price and time restrictions local businesses must balance to ensure their own viability.

Hypothesis 3: The degree of signage on shelves, menus, and personal interactions is dependent on the degree of steady flow of organic and local food resources.

The third hypothesis received mixed support. Restaurants and retailers both convey information to customers through signage on shelves, menus and through personal interactions with staff. Restaurants purchasing direct from farmers did not print
‘local’ in preset menus; the unreliability of these products potentially puts the restaurants at liable fault for false advertising if a local product is replaced with a non-local one without full disclosure. Instead restaurants strategically reserve local foods for featured specials. Retailers distinguished local foods with a variety of signs ranging from handwritten ink and cardboard to professionally printed labels, while primarily marking organic foods with large banners. Retailers were more likely to stock pre-packaged, pre-labeled organic foods from an out-of-state distributor compared to restaurants. All respondents indicated it was easier to communicate the advantages of local (regardless if organic or not) because of the difference in taste and quality readily apparent with fresh in-season foods. Respondents also believed customer preferences constrained their ability to purchase local and organic foods. Retailers were more likely to stock organic and local foods as a response to customer demand, while restaurants felt the majority of their customers were currently under-educated and under-appreciative of such foods. However, some restaurants are increasingly using the concepts of fresh, local, and organic to draw in customers, the flexibility of restaurants to feature limited edition specials provides a viable market outlet for limited quantity supplies.

Conclusions

Surveys among Ohio’s restaurants and food retail outlets revealed a genuine interest in purchasing local foods produced organically or sustainably with minimal inputs. However, as research conducted by Starr et al. (2003) found, access to information and products has prohibited significant market growth. Efforts to create a local food system in Ohio servicing the restaurant and food retail outlet markets have
been limited due to the lack of infrastructure and lack of formal grower networks able to effectively communicate with buyers and consumers, produce enough volume to service these market demands, and reliably market and distribute their products. These findings extend conclusions by Weatherell et al. (2003) (that U.K. consumers will embrace local foods when products are available in a purchasing framework similar to one they are currently operating in) to restaurants and food retail buyers. Although taste is a primary motivation for purchasing foods, respondents indicated actual behavior is moderated by convenience and price; thereby demonstrating that multiple motivations including those posited by Hinrichs (2000) and Sage (2003) (such as social embeddedness, marketness and instrumentalism) are influencing restaurant and retail food buyers purchasing patterns.

Qualitative and quantitative results revealed purchasing patterns vary by region. Regional differences represent unique opportunities and challenges for creating sustainable local food systems in Ohio. The following is a brief characterization of production and consumption patterns within the survey regions.

Akron – Restaurants and retailers demonstrated a high interest in purchasing local and organic foods. A wide range of consumers interested in the health attributes of fresh and sustainably grown foods combined with an increasing number of Indian and Middle Eastern residents living in the region provide ample market opportunities. However, the region is characterized by residential sprawl which can create high delivery and advertising costs for independent farmers.
Cincinnati – Restaurants and retailers had an extremely high interest in purchasing local and organic foods. High end restaurants were well networked with local farmers through the Findley Farmers Market and through the region’s informal Chef’s Collaborative Chapter. Respondents indicated great interest in local and organic foods. Restaurant respondents spoke of the transformation emerging within Cincinnati’s dining culture. An influx of independently owned restaurants and new chefs are increasingly incorporating farm fresh foods as essential ingredients.

Cleveland – Respondents demonstrated high interest in local and organic/low input foods. Farmers cooperatively marketing their products to restaurants have found great success and receptivity. A dense urban region with a strong regional identity combined with a highly diverse population provides for rich market opportunities in multiple venues. Farmers cooperatively partnering to market and distribute products have demonstrated the effectiveness of small networks.

Columbus - Restaurants and retailers had a high interest in local and organic foods, however, their demand was often not met. Columbus restaurants had less access to local growers compared to Cincinnati and Cleveland where stronger farmer-chef networks were in place. Increasingly upscale and diversified populations are providing opportunities for local growers, however, efforts to increase linkages between these groups are necessary for continued development.
Toledo—Overall compared to other regions Toledo respondents were as likely to be interested in local foods but less likely to be interested in organic foods. Obvious exceptions to this trend existed amongst natural food groceries and co-op stores. The vast majority of restaurants did not purchase local and had little interest in organic foods. Toledo maintains one of the largest Middle Eastern populations in Ohio and a significant Hispanic population—that could potentially provide important market opportunities for local farmers. Some of Toledo’s ambivalence towards local and organic foods may be explained by the fact Northwestern Ohio farmers have traditionally grown for a contract or export market. Previous markets circumvented the need for urban direct marketing initiatives. However, increased imports from Central and South America combined with the loss of contracts, processing facilities and depressed commodity prices have weakened local farming communities that are unaware of new market opportunities.

Direct marketing initiatives like the Erie Street Market have provided an important economic stimulus for the city of Toledo and participating farmers. Unlike other regions of Ohio, many northwest and north coast farmers own large tracts of land, are experienced large scale vegetable producers and have dealt with seasonal and migrant labor. With structural support these farmers could potentially transition into sustainable local food system production and continue to increase economic impacts by working with locally based independent distributors to help feed the state of Ohio.

The high interest in local and sustainably grown low-input or organic foods has several implications for Ohio’s environment and Ohio’s farmers. A shift to a locally based food supply would reduce the reliance on intensive transportation system reliant on non-renewable fossil fuels and would thereby reduce carbon emissions as suggested by
the Leopold Center. A shift to sustainable agriculture practices would require the adoption of techniques that promote soil fertility and agroecosystem health through the use of crop rotations, cover crops, compost, rotational grazing etc., resulting in a reduced use of costly synthetic fertilizers and pesticides. A diversified landscape promotes biodiversity and increases agroecosystem health. Managing nutrients in an on-farm closed system would reduce leaching of agro-chemicals and fertilizers into the water system.

A shift to a diversified market base would allow farmers to transition out of a corn-soybean commodity crop foundation by adopting crops that have immediate local market value. Furthermore, a local food system can foster economic development by creating business and employment opportunities for local farmers, suppliers, processors, distributors, retailers and food service providers. As Goldschmidt (1998) and Ikerd (1998) suggest, independent and locally owned businesses are able to take advantage of community based networks and local service providers to keep dollars flowing within the community. A local food system based on primary social relationships creates an awareness and responsibility (among farmers and businesses connected to agriculture) to evaluate how individual actions impact the health of the local community and the local environment. Local, state and federal governments can avoid the potential economic inequities and environmental catastrophes industrialized farming systems can create by adopting policies that promote independently owned local businesses and family-owned small and medium sized farms.
Future Directions

To be successful a local food system requires the following attributes: 1) Farmers to have business skills that will allow them to analyze current market conditions and trends, manage their resources to maximize their economic, environmental and social conditions; 2) Growers engaged in production techniques that continue to increase economic viability, enhance fertility and overall farm profitability; 3) Consumers, retailers, and chefs to be aware of the variety of local foods available and how they can take part in the local food system; 4) Signage and labels demarcating locally grown (in-state and region) foods distinct from imported foods; 5) A packing and distribution system in accordance with USDA Hazard Analysis and Critical Control Points (HACCP) regulations required for serving restaurants and food retail outlets; 6) Locally-based brokers able to mediate the demands of buyers with the supply capabilities of growers; 7) A delivery system capturing an economy of scale providing a fair price to consumers and a fair wage to the growers, that ensure a reliable quality, quantity and flow of products; 8) Growers, non-profit special interest groups, local economic development boards, universities and government institutions networked to provide support, structure and programming to growers and consumers as regions transition towards local food systems.

For farmers to successfully transition into local food systems non-profit organizations, special interest groups, private businesses, chambers of commerce local, state and academic institutions must work together to provide research-based materials enabling growers to develop strategies for: seed variety selection, planting schedules, crop rotation, maintaining fertility, locating markets, approaching buyers, pricing products, grading systems, packing units and standards, and delivery schedules providing
quality, quantity, and flow of products that will satisfy market demands. A local foods system also requires a successful agri-foods network to coordinate local supply chains that encompass reliability, openness, honesty, power balance and direct communication within the producer group but also maintain vertical and horizontal linkages with: local buyers, independent distributors, non-profit farmer interest organizations, local and regional economic offices, academic, state and federal institutions (Jarosz 2000).

The idea of networks between growers generally infers some joint marketing and distribution system, often in the form of an agricultural cooperative. Traditional cooperatives have a poor success rate in Ohio, resulting in a persistent distrust for the structure among farmers. However, an IFO and OEFFA survey (2002) demonstrates farmers are recognizing the limitations of independent marketing and distribution and may be more willing to participate in alternative cooperative structures. Farmers may decide not to sell direct for a variety of reason including: inappropriate farm location, low turnover of product, marketing and capital needs, complexity of health and hygiene regulations. Studies by Verhagen & Huylenbroeck (2001) document the strength of cooperative models by analyzing the costs and benefits for Belgian farmers participating in innovative cooperative marketing channels. Research revealed farmers in a co-operative venture were able to counteract the time, labor and skill obstacles faced by independent farmers or those not suited for direct-marketing ventures. Cooperative forms of organization provided groups the time and labor to take advantage of networks, promote innovations, organize a quality insurance system, guarantee a surplus price which reduces price uncertainty. Researchers found livestock, dairy and vegetable
growers were more willing to join the “cooperative marketing channel” because of the higher prices incentives.

Ohio can achieve a profitable local food system that retains farmland and promotes economic growth by utilizing the principles of networks and linkages to: 1) Increase funding and support for producer and worker owned processing, packaging and value-adding facilities. 2) Foster relationships between local distributors and local farmers in order to aggregate product and facilitate distribution efficiencies. 3) Assist with ‘Ohio’ label development and procurement of shelf space. 4) Promote and enhance direct marketing initiatives including farmer’s markets, CSA’s and U-pick operations.
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APPENDIX
Survey Questionnaire
1. Contact Information

Name of individual completing survey - __________________________________________

Name of store or restaurant - _________________________________________________

Address and Phone Number of Store and Contact Person _______________________________________

Meals Served: Breakfast Lunch Dinner

Section 1. We would like to know if you purchase any organic or local foods and what kinds of information networks you utilize.

1. Approximately how many customers do you serve in: a week _______; a year _______

2. Approximately how many years have you been in operation? _________________

2a. Where did you train? ___________________________ __________________________

3. Please list the factors that encouraged you to build your restaurant in its current location e.g. proximity to downtown...

3a. Do you purchase organic foods? YES NO

Do you purchase local foods? YES NO

4a. Please rank from 1-5 the following advertising strategies for promoting your restaurant from most effective to least effective with 1 being most effective and 5 being least effective

____ Internet Site
____ Coupons
____ Print Media Advertisements
____ Radio Advertisements
____ T.V. Advertisements
____ Organic Food Features
____ Local Food Features
____ Special Events, please provide examples _______________________________________
____ Other, please describe: _______________________________________________________

4. Please check all groups you are a member of:

____ Ohio Proud
____ Innovative Farmers of Ohio
____ Ohio Ecological Food and Farming Association (OEFFA)
5. How do you keep on top of food trends and available ingredients? Please check all categories that apply.

- Trade Magazines please list
- Trade e-letters
- Websites
- Organic Trade Association
- Food Arts
- Produce Alliance Newsletter
- Sysco Newsletter or e-letter
- Specific Trade Magazines;
- Travel – national and international
- Other

6. Do your modes of information feature or discuss organic products? YES  NO

7a. Do they list distributors of organic produce? YES  NO
7b. Do they list distributors of organic meat cuts? YES  NO
7c. Do they list distributors of organic dairy products? YES  NO

8. What are your food costs?

9. Do you use the Joe Baum Forum? YES  NO

10. Please circle how the taste of organic foods compare with uncertified foods?

Worse  No Difference  Better

Please explain

11. Please circle how the taste of local foods taste compare to imported food?

Worse  No Difference  Better

Please explain

Section 2. We would like to know about the ingredients you choose to incorporate into your menus and if you use them as part of your advertising and restaurant promotion strategies.
11a. Please describe how locally grown organic food tastes ____________________

12.

<table>
<thead>
<tr>
<th>What percentage of <em>produce</em> purchased is locally grown?</th>
<th>Spring</th>
<th>Summer</th>
<th>Autumn</th>
<th>Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>What percentage of <em>meat cuts</em> purchased is locally grown?</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What percentage of <em>dairy products</em> purchased is locally grown?</td>
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<td></td>
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<tr>
<td>What percentage of <em>produce</em> purchased is organic?</td>
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<td></td>
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<tr>
<td>What percentage of <em>meat cuts</em> purchased is organic?</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>What percentage of <em>dairy products</em> purchased is organic?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What percentage of <em>produce</em> purchased is locally grown and organic?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What percentage of <em>meat cuts</em> purchased is locally grown and organic?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What percentage of <em>dairy products</em> purchased is local and organic?</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

13. Does the locally grown produce you purchase have to be certified organic?
   YES  NO
   Why or Why Not? ____________________________________________________________

14. Do you highlight local products on your menu?  YES  NO
15. Do you highlight organic products on your menu?  YES  NO
16. Please score on a scale of 1-5 (1 most important, 5 least important) the relative importance of each label to your customer

___ Organic  ___ Local

17. *Would you purchase a product that contained GMO ingredients?*

YES  NO

18. Do you trust local farmers to produce quality products

Please Explain:

_____________________________________________________________________________________________________________________________________________________

18. Are you interested in creating a relationship with a local farmer

YES  NO

19. Do you feel there is an adequate supply and selection of in-season local foods?

YES  NO

If NO, *Would you like to see an increased availability and selection of local foods? Please explain:*
_____________________________________________________________________________________________________________________________________________________

_____________________________________________________________________________________________________________________________________________________

20. Do you purchase from local farmers markets or road side stands for your business?

YES  NO

a. If yes, what percentage of your ingredients come from the farmers market?

________________________________________

b. Do you allocate a specific budget set aside for local foods?

YES  NO
c. If yes, approximately how much or what percentage of your budget is allocated?

________________________________________

21. Are you willing to pay more for locally grown organic food?

YES  NO

Do you spend time training employees on the definitions and differences between

a. Local vs. imported \produce?  

YES  NO

b. Local vs. imported meat?

YES  NO
c. Local vs. imported dairy products?

YES  NO

Why or Why Not?  ________________________________________________________________
22. Do you spend time educating employees on the definition and differences between organic, transitional and conventional?  

Why or Why Not?  

23. Do you spend time educating your customers on the definitions and differences between local and imported foods?  

Why or Why Not?  

24. Do you spend time educating customers on the definition and differences between organic, transitional and conventional?  

Why or Why Not?  

Section 3. We are trying to assess how much food that is produced in Ohio actually cycles through the local food system. This next set of questions are in reference to purchasing.  

Please rate the next set of questions on a scale of 1-5 where 1 is most important and 5 is least important  

25. On a scale of 1-5 please rate how important taste is in your purchasing decisions?  

1 2 3 4 5  

26. On a scale of 1-5 please rate how important convenience is in your purchasing decisions?  

1 2 3 4 5  

27. On a scale of 1-5 please rate how important price is in your purchasing decisions?  

1 2 3 4 5  

28. Do you prefer to purchase from an Ohio Proud Member?  

YES  NO  NOT IMPORTANT  

29. Do customers request locally grown farm products?  

YES  NO  

30. Is there a price difference between locally produced products and imported out-of-state products?  

YES  NO
31. If YES, what is the price difference for the following in-season product categories. And circle if customers are willing to spend more for Ohio grown products.

<table>
<thead>
<tr>
<th>In-State vs. Out-of-State Price Differential</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Table" /></td>
</tr>
</tbody>
</table>

32. Please check which system you would prefer to order from:
   _____ Individual Farmers
   _____ An Ohio Region Food Distributor
   _____ A Midwest Regional Food Distributor

a. Please explain your preference
   _______________________________________________________

b. If you would prefer a delivery service; Do you know anyone in the area who could potentially organize such a service? Please list their name and contact information
   _______________________________________________________
   _______________________________________________________

33. Owner is:
   _____ Chef    _____ Independent Proprietor    _____ Group of Investors
   _____ Corporation    _____ Partnership

34. Restaurant Rating
   The average cost of a main dinner entrée $________
   The average cost of a lunch entrée $________

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34a. Please check the price range category that best describes your restaurant

   ____ Expensive
   ____ Moderate
   ____ Inexpensive


Section 4. Purchasing Habits

35. Please explain how you define quality. E.g. shelf life, taste, aesthetics for the following categories:

Fresh

Produce

Meat Cuts

Dairy Products

36. Check how the quality of locally grown organic foods compare to non-local (out of state or out of country) organic foods.

<table>
<thead>
<tr>
<th>Local Organic</th>
<th>Lower Quality</th>
<th>Equal Quality</th>
<th>Better Quality</th>
<th>Vs. non-local organic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Produce</td>
<td></td>
<td></td>
<td></td>
<td>Produce</td>
</tr>
<tr>
<td>Meat</td>
<td></td>
<td></td>
<td></td>
<td>Meat</td>
</tr>
<tr>
<td>Dairy Products</td>
<td></td>
<td></td>
<td></td>
<td>Dairy Products</td>
</tr>
</tbody>
</table>

37. Do you purchase #1 or #2 graded produce?  

   YES   NO

38. Please list the type and variety of local produce, meat and dairy products you purchase

   ________________________________
   ________________________________
   ________________________________

39. Please list the type and variety of organic produce, meat and dairy products you purchase

   ________________________________
   ________________________________
   ________________________________
40. Please list the type and variety of locally grown organic produce, meat and dairy products you purchase.

41. Do any of your local produce farmers practice techniques to extend the season e.g. greenhouse? YES NO

42. Do you purchase any locally grown hydroponic vegetables? YES NO

43a. Would you like to increase the volume of locally grown organic produce you purchase? YES NO

43b. What fruits and vegetables and herbs (please be variety specific when possible) would you like to see available locally that are currently unavailable?

44a. Would you like to increase the volume of locally grown organic meat cuts you purchase? YES NO

44b. What meats would you like to see available that are currently unavailable?

45a. Would you like to increase the volume of locally grown organic dairy products you purchase? YES NO

45b. What dairy products would you like to see available that are currently unavailable?
Section 5. Sourcing and Purchasing Decisions

46. Who is in charge of ordering fresh produce?

47. Please mark the distribution systems you employ to purchase Fresh Produce, if they are an Ohio Proud Member, and if they deliver/grow CERTIFIED ORGANIC produce

<table>
<thead>
<tr>
<th></th>
<th>I Purchase From</th>
<th>Supplier is an Ohio Proud Member</th>
<th>Supplier carries Local Produce</th>
<th>Supplier carries Certified Organic Produce</th>
<th>Supplier carries Certified Organic Ohio grown produce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Contract with Individual Farmers</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Direct Purchases from Individual Farmer (No Contracts)</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Wholes Distribution Company Name:___________</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Wholesale or Terminal Market</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Other, Please Explain:</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
</tbody>
</table>
48. Please mark the methods you use to order products from each purveyor type *And* please mark how often you order e.g. daily, weekly, monthly

<table>
<thead>
<tr>
<th>Method</th>
<th>Phone/Fax</th>
<th>Internet</th>
<th>Mail Catalogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Contract with Individual Farmers</td>
<td></td>
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</tr>
<tr>
<td>Other, Please Explain:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

49. What is your preferred method of ordering and distribution?

________________________________________________________________________
________________________________________________________________________

50. How often do you receive orders of fresh produce?

________________________________________________________________________

51. Do you order produce by count, weight or volume?

________________________________________________________________________

52. What sort of packaging do you prefer food to be delivered in?

________________________________________________________________________

53. Could you accommodate reusable boxes?

________________________________________________________________________

54. Who are your distributors?

   a. Produce

   b. Meat

   c. Dairy
Section 6. If you do purchase direct from farmers please answer the following set of questions

55. Does the chef and farmer pick out crop varieties and seeds together?  YES  NO

56. When direct from a farmer do they contact you or do you contact them? Please explain your ordering system?  

57. Do you ever pick up products directly from the farm?  YES  NO

If yes, how far of a radius are you willing to drive to purchase products and how frequently do you make on-farm purchases?  

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