

**STRENGTHENING AND CREATING INSTITUTIONAL MARKETS IN THE
CHEQUAMEGON BAY FOODSHED**

BY

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ABSTRACT

Communities around the world are working towards agriculture sustainability through research and design of local food systems. Three cities within the Chequamegon Bay region of Wisconsin have developed initiatives to become Eco-municipalities with a focus on sustainable agriculture. The two-county region is rich with producers and consumers and a local food system seemed logical. A research study associated with the Sustainable Agriculture and Forestry Program of the Global Environmental Management Education Center at UW-Stevens Point was designed (1) to obtain local knowledge from food producers and institutional consumers for identifying opportunities for improved marketing potential, and (2) to develop outreach education materials and recommendations to enhance communication in developing a successful Chequamegon Bay Foodshed initiative.

To address the first 'local knowledge' objective, interviews with 19 local producers and 15 institutional consumers were conducted from Winter 2006 to Summer 2007 that revealed marketing barriers in developing a local food system in the Chequamegon Bay Foodshed. The producers were selected through their current participation in farmers' markets and the University of Wisconsin Extension. The consuming institutions, such as restaurants, schools, hospitals, and nursing home facilities, were selected through their potential to source large quantities of food for a long timeframe. Qualitative and quantitative information from the interviews was analyzed by grouping similar statements or ideas into themes that relate to barriers and opportunities discussed in the literature review. The identification of the barriers led to recommendations that reduced or removed the barriers in order to create a stronger local food system in the Chequamegon Bay region.

To address the second 'outreach' objective, two educational products were developed: (1) a local food guide to advertise local producers and consuming institutions, and (2) an outreach brochure with recommendations to educate the public about the opportunities available for the community to develop a sustainable local food system in the Chequamegon Bay Foodshed. A community forum was held featuring a presentation to share foodshed development recommendations and to promote discussion and action in strengthening local food markets.

Depicted in a Chequamegon Bay Foodshed concept map, a local food cooperative recommendation brings local food producers and local institutional consumers together for efficient communication and business transactions. The main branches of the local food cooperative consist of 1) production schedule, 2) local food guide, 3) local food hotline, 4) local food label, 5) processing center, 6) storage center, 7) delivery system, and a 8) new farmer incubator program.

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Chapter 1: Introduction

The flow of food in and out of a community is called a foodshed, a term derived from watershed (Hedden 1929; Getz 1991). A watershed does not consist entirely of water from a major source, it gathers water from smaller tributaries created by rainfall or underground springs, as should a foodshed (Berry 1992; Crouch 1993; Dahlberg 1993; Friedmann 1993; Gussow 1993; Herrin and Gussow 1989; Kneen 1989). Like a river, food defines the landscape and culture of an area, which directly involves humans. Within the landscape or environment people, culture and food are continuously impacting each other (Figure 1). These factors influence what is available for consumption within the foodshed.

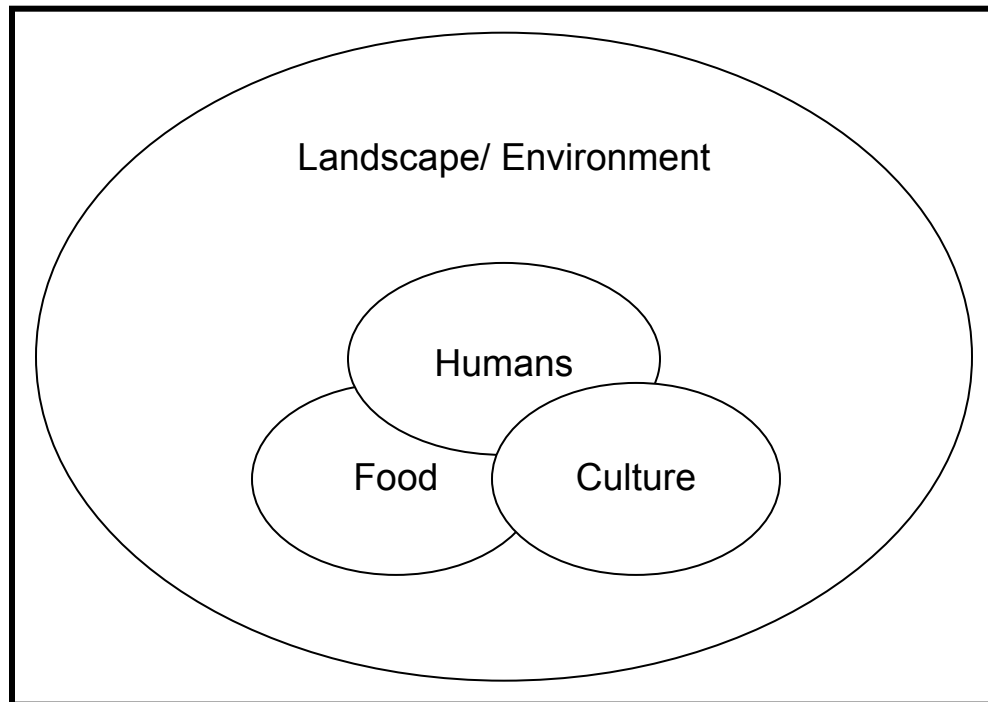


Figure 1. Connections within the Landscape

Americans participate in a global foodshed where food is grown far away from where it was consumed which disconnects people and food (Kneen 1989; Kimbrell 2002) leading consumers to desire local food (Baber and Frongillo 2003). In the United States (US), the average food item travels between 2,500 and 4,000 kilometers, from producer to consumer (Pirog et al. 2001). It also changes hands multiple times during the journey allowing for contaminants to enter by accident or with terrorist intentions. In the 1980s salmonella threatened the food system and in the 1990's there were issues with Bovine Spongiform Encephalopathy (BSE) or mad cow disease (Council for the Protection of Rural England 2001). In 2001, the United Kingdom (UK) experienced a terrible outbreak of foot-and-mouth disease amongst slaughterhouse cattle, which immediately stopped the sale of beef (Council for the Protection of Rural England 2001). A recent outbreak of *E. coli* bacteria on spinach grown in California also threatened many lives (Halweil 2002; 2005). These events are bad for the economy, the farmers, and the food processors, and demonstrate the vulnerability of food in the large corporate system that food purchasing has created (Halweil 2002; 2005).

The risk of destroying food while in transit is just as possible as allowing contamination of food during transit. If food delivery systems were shut down it is theorized that most major cities in the US have less than two days' worth of food on hand, which makes them highly vulnerable (Halweil 2002). The continuation of food safety scares has let consumers realize their unawareness of knowing what is in their food, where their food comes from, and who grows their food (Council for the Protection of Rural England 2001; Morris and Buller 2003).

The long distance transporting of food consumes large amounts of fossil fuels (Kloppenburger 1996; Paxton 1994; Jones 1998; 2001; Boge 1996; Pirog et al. 2001) promoting local food consumption (Halweil 2000; 2002; Schueller 2001; Kimbrell 2002). For example, one calorie of energy from lettuce flown from the US to the UK consumes 127 calories of airplane fuel (Wakeman and Smith 2005).

When consumers desire locally produced food, it is difficult to find enough skilled farmers and farmland. The loss of cropland, farmers and farming skills were all tied together in the sprawl of urbanization. For a diverse US diet, 0.5 hectare per person is considered minimal. As reported in 1996, world cropland has declined to only 0.27 hectare per person. Only 2% of the US population was employed in farming which had reduced the number of skilled farmers who could practice organic (non-petroleum based) farming (Wakeman and Smith 2005).

The vulnerable food processing and distribution systems, the unsustainable fuel usage, and the loss of land and skilled farmers all led to mismanagement of natural resources. Mismanagement harms natural resources, economies, and people (National Research Council 1989). A localized focus could reduce potential damage to the flow within a foodshed (Kloppenburger 1996). Many communities have worked to strengthen and increase the local tributaries to their foodsheds for sustainability, nutrition, and building community through the development of food policy councils (Dahlberg 1993; Hartford Food System 1991; Kloppenburger 1996; Snyder 1992; The Toronto Food Policy Council 1993).

In light of this vulnerability in the national foodshed, the FEAST Council (a local food policy council which stands for Food security, Education, Access, Sustainable

agriculture, and Traditions) in the Chequamegon Bay of Wisconsin is working to create a sustainable food system. The FEAST Council has taken the challenge to focus on food related topics in food security, education, access, sustainable agriculture, and traditions. With the support of the Alliance for Sustainability's Sustainable Chequamegon Initiative, the FEAST Council partnered with the Global Environmental Management Education Center (GEM) at the University of Wisconsin-Stevens Point (Silberstein 2006). This partnership spurred this study to research pathways for increasing and strengthening markets within the Chequamegon Bay Foodshed.

In this research, the term 'local' represents the two counties of Ashland and Bayfield, which comprise the majority of the Chequamegon Bay. Local is a term to be defined by an individual or group to fit their needs. The Practical Farmers of Iowa limited local food by state boundaries (Hinrichs 2003). Past endeavors to identify local food in the Lake Superior region included Minnesota, Wisconsin, and Michigan (Superior Grown). In this research, local is defined as two counties of northern Wisconsin, Ashland and Bayfield.

The overall research goals of this study were to assess the barriers between consumers and producers within the Chequamegon Bay Foodshed and to identify various methods to remove these barriers. To achieve these goals, a framework was built to categorize local markets and create a guide for assessment of a community for local food system development through a review of literature of community projects that address foodshed barriers (Chapter 2). A review of these projects revealed common challenges and opportunities within local food projects. A producer and consumer interview methodology was designed and conducted (Chapter 3) for the Chequamegon Bay region

based on the research goals. The interviews collected information on the current and potential local food production capacity and the barriers between the producers and consumers. Qualitative and quantitative results from these interviews were analyzed (Chapter 4) by grouping similar statements or ideas into themes that relate to the barriers and opportunities discussed in the literature review. The interview results are discussed (Chapter 5) to identify recommendations for the Chequamegon Bay Foodshed producers and consumers.

An outreach objective was designed to facilitate communication to help local producers and consumers build a successful Chequamegon Bay Foodshed initiative. The research results and recommendations were to present in a community forum allowing discussion and interaction between producers and consumers. The recommendations were presented in a Sustainable Foodshed Cooperative concept map which is described in the local food guide and research brochure. The local food guide was created for the community as a contact guide with recommended actions for producers and consumers in the Chequamegon Bay Foodshed based on their needs and the success and failures of other local food projects such as the one depicted in the literature review. The research brochure was created to educate the public about the possibilities for sustainable agriculture development within the Chequamegon Bay Foodshed.

1.1 Objectives

The objectives of this research were to:

- 1) To identify producer and consumer barriers and assess the Chequamegon Bay community for local food system development through interview assessment;

- 2) To develop outreach materials with recommendations to inform decision-making, build awareness, and stimulate action steps to build and strengthen the Chequamegon Bay Foodshed community.

Chapter 2: Literature Review

This review of the literature identifies how other communities are establishing stronger local markets, and develops a framework for analyzing the literature. The framework structures the markets into groups based on the timeframe of need (Figure 2) and the targeted consumers (Figure 3).

All markets can benefit from peak season produce, but a few markets such as summer meal service programs, conferences, and tourism may be dependent upon seasonal availability. Many markets such as schools, health care facilities, and restaurants would need fresh produce during off season timeframes. From this discovery, the markets were organized into three timeframe categories: long-term markets, short-term markets, and short- and long-term markets (Figure 2). Within the timeframes the targeted consumers must be considered, for planning food varieties that may be culturally appropriate to specific events and the amount of food needed. The data collected within the interviews of producers and consumers in the Chequamegon Bay were analyzed within this framework.

Short-Term	Short- & Long-Term	Long-Term
Tourism Conferences	Restaurants Chefs Public Meal Services	Schools Health Care Facilities

Figure 2. Timeframe Grouping of Markets

Regulated Capacity	Unregulated Capacity
Schools Health Care Facilities Public Meal Services Conferences Chefs (Catering)	Tourism Restaurants

Figure 3. Regulated and Unregulated Consumer Capacity

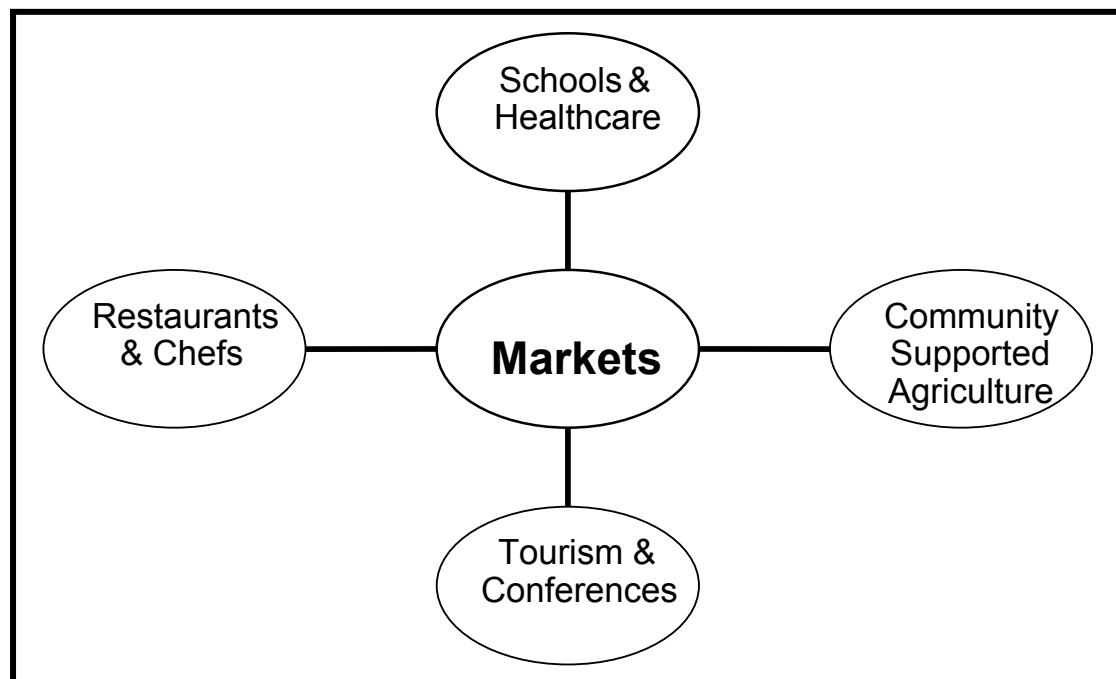


Figure 4. Direct Market Approaches

Multiple categories of direct marketing exist and how producers and organizations are tapping these markets to increase the consumption of local food differ. Direct marketing approaches include: educational and health care institutions; tourism and conferences; chefs and restaurants; and community supported agriculture (CSA) as

shown in Figure 4. Established markets (Figure 5) have continual dependable sales (Crabb, Lawless 2007; Iles 2005) as compared to the instability and seasonal fluctuation of temporary markets (Figure 6). The direct marketing model of community supported agriculture (CSA) is a scaled-up, regional approach. The literature review also identifies common themes between the markets and the CSA model, and an overview of the emerging local food system in the Chequamegon Bay region.

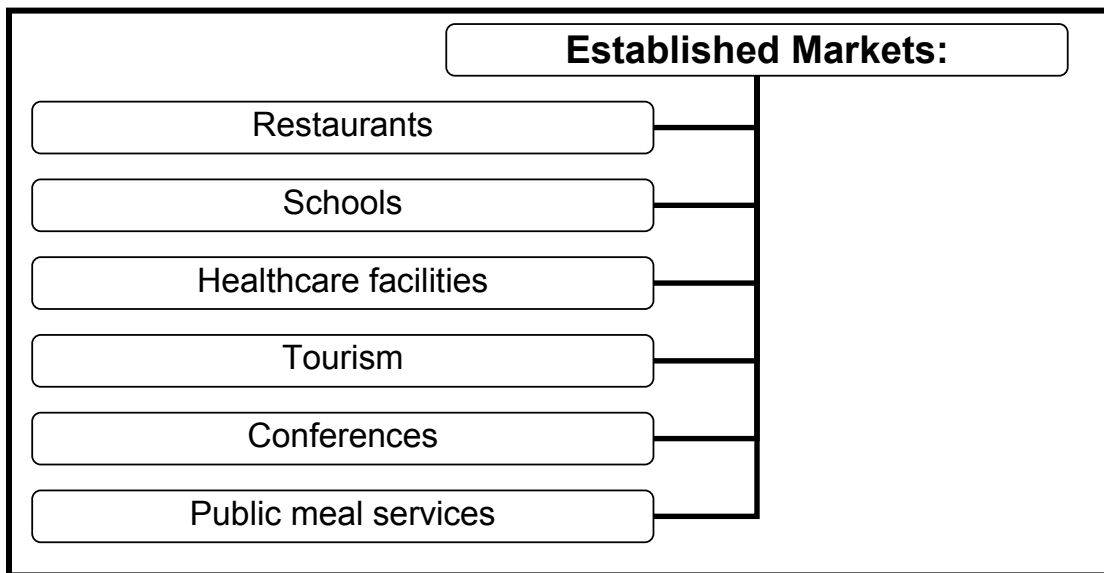


Figure 5. Established Markets

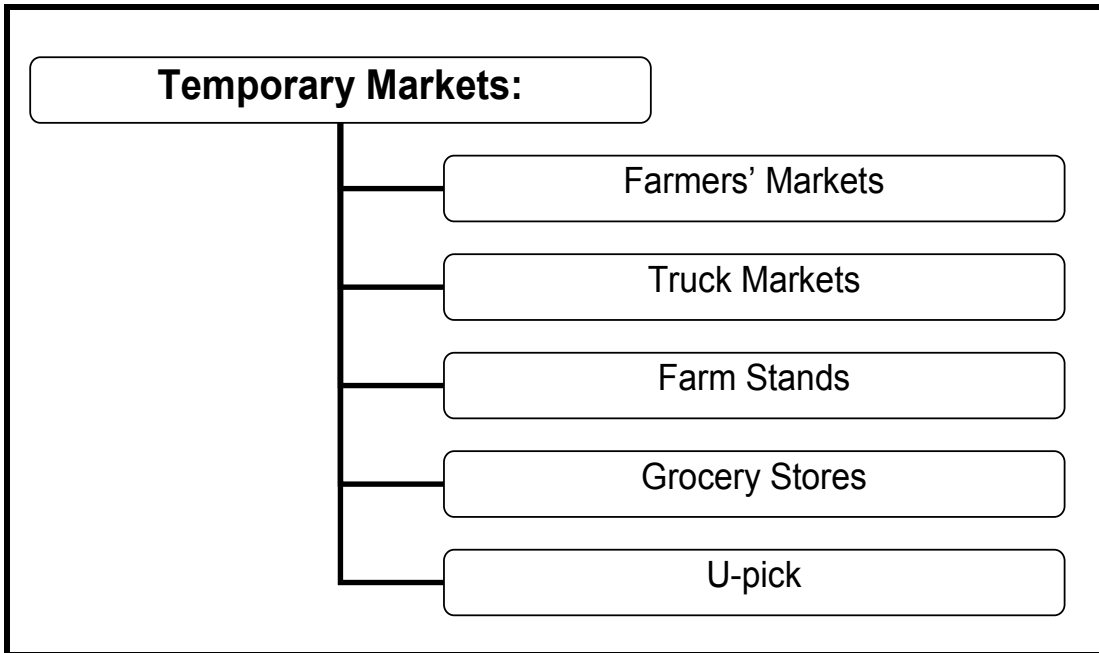


Figure 6. Temporary Markets

2.1 Benefits of Local Food

The benefits of local food fall into three categories of health: environmental, human, and economic (Figure 7) (Guptill and Wilkins 2002; Ruttan 1997; Feenstra 1997; Allen et al. 2003; Hinrichs 2003; Halweil 2002; Henderson 1998). These three categories are critical components within a healthy community (Kloppenborg 1996) and considered by many to be the three branches of sustainability (Guptill and Wilkins 2002; Ruttan 1997; Feenstra 1997; Allen et al. 2003; Hinrichs 2003; Halweil 2002; Henderson 1998).

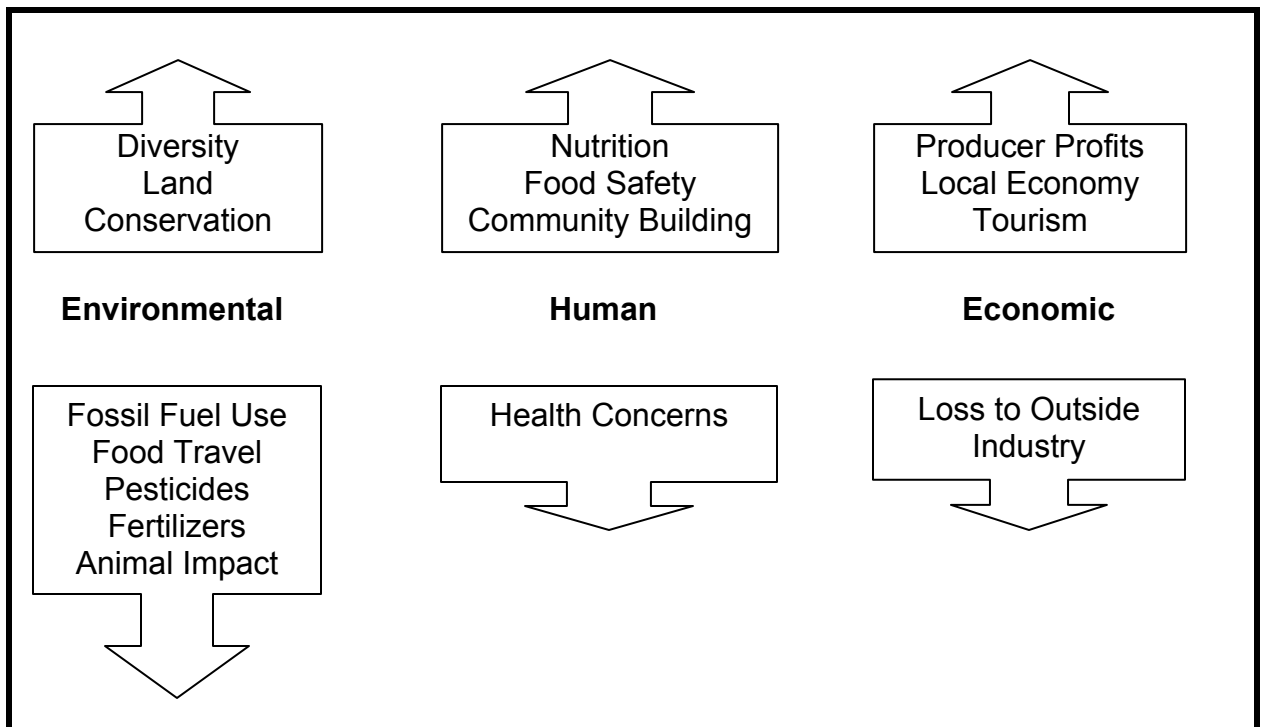


Figure 7. Increase and Decrease of Environmental, Human, and Economic Impacts of Local Food.

Environmental health benefits include the reduction of fossil fuel consumption for transporting food between 2,500 and 4,000 miles from farm to plate (Pirog et al. 2001). Decreasing the distance food traveled before consumption would decrease the negative impact food production has on global climate change (Halweil 2006). Local production inherently calls for more diverse farms that meet the varied demands of the consumers (Feagan et al. 2004). Diverse production reduces the need for artificial pesticides and fertilizers, which benefits the soil, air, water, wildlife, and humans (Halweil 2006; Goland 2004; Norberg-Hodge et al. 2002; Kimbrell 2002; Hinrichs 2000; Henderson 1998). Greater diversity of animals reduced the numbers contributing to the poor quality of animal welfare and their reduced impact on the land. Local farms reclaim value of urban areas and secure the availability of food by providing land trust agreements to

maintain the land as a farm and avoid transforming it into shopping malls, parking lots, or suburban lawns (Feagan et al. 2004; Kloppenburg 1996).

Human health benefits of local food directly relate to nutrition through consumption of fresher foods, which have higher nutrient levels (Nestle 2003). Nutrition is a factor in the six leading health concerns of Americans, namely obesity, diabetes, heart disease, cancer, hypertension, and stroke (Nestle 2003; Harvie 2006). One third of US children and young adults have been diagnosed as obese (Ogden et al. 2006). Food that traveled shorter distances, from a reduced number of sources contributed to easier tracking of products and therefore higher levels of food safety (Shapiro 2006). Local food also benefits the social health of humans through the knowledge of who produces the food that sustains the lives of everyone in a community, not just the individual (Kloppenburg 1996; Sage 2003; Hinrichs 2003; Winter 2003; Curry 2002; and Lyson et al. 1995).

The economic health benefits of local food consumption are recognized in rural areas where farming occurs. Smaller, diverse farms produce more on a per acre basis than large, monoculture farms (Rosset 1999), which leads to increased profits per acre (Boody et al. 2005). Ken Meter from the Crossroads Resource Center found that residents of southeastern Minnesota spent over \$500 million on food in 1997, buying mostly from producers and companies from outside the region (Halweil 2002). A study in the UK by the New Economics Foundation found that if every person, tourist and business switched just 1% of their current spending to local goods and services this would circulate an additional \$103,501,125.00 into the county economy every year (Pretty 2001). When the producers serve the local community, the farmer was more likely to reinvest in another

local service and thus kept money flowing in the local economy longer (Action for Market Towns 2002; Halweil 2002; Norberg-Hodge et al. 2002). Local food initiatives also increased local job opportunities (Pretty 2001).

The three categories of health benefits (environmental, social, and economic) of local food production and consumption provided evidence for the necessity to strengthen and create local markets. The larger production markets of educational and health care institutions, conferences, tourism events, chefs, caterers, restaurants and community supported agriculture (CSA) described below are closely associated with these benefits.

2.2 Institutions: Educational and Health Care Facilities

Institutions consume large quantities of food, providing a stronger, long-term market group for local producers than other opportunities, like farmers markets or farm stands. Figure 8 shows the components of the long-term market group. About \$12 billion was spent on food and beverages in healthcare facilities across America in 2005 (Healthcare Food Service Management 2006). Institutions usually predict their food consumption based on their clientele, which allowed farmers to plan their production in advance. Institutions could increase the number of local market opportunities by purchasing from local producers.

Educational institutions are ideal markets for local food because of the strong public pressure to provide healthy food to students, particularly young children, through the national school lunch program (Child Nutrition and WIC Reauthorization Act of 2004). The US Congress requires that school districts with federal school meal programs develop and implement wellness policies for nutrition and physical fitness by the 2006-2007 school year (Child Nutrition and WIC Reauthorization Act of 2004). In Wisconsin

the push for local consumption in schools comes from a number of sources: students (Northland College), producers (Madison), administration and outside interest groups (Appleton), and parents (Madison, Washburn). The national farm to school website lists 400 school districts in 22 states operating farm-to-school programs (www.farmentoschool.org).

Schools “going local” hire chefs with restaurant and hotel cooking experience to transform the menu and food sourcing. Trained chefs with a passion for quality food strive to prepare a healthy, tasty meal (Shapiro 2006). Organic and conventional salad bars have also been implemented in many schools, which have been successful at changing eating habits and increasing local food consumption (Cooper 2006; Holman 2007). Purchasing less processed foods provides opportunities for schools to incorporate local alternatives. Chefs at farm-to-school cafeterias source produce, meat, and dairy products from numerous channels: both through food service distributors and directly from local producers, including student farms (Shapiro 2006; McNerney 2006). Some schools incorporate gardening or food production into the curriculum (Upton 2006; Burches 2006; Masterson 2007; CIA 2001). Progressive food service directors and non-profit organizations, participate in contacting producers to organize the variety, quantity, form, and delivery of food (Allen 2006; Cooper 2006; Holman 2007).

Health Care Without Harm is an international coalition of 433 organizations in 52 countries that strives to provide health care without harming humanity and the earth (Kulick 2005). A strong part of this challenge is to create healthy eating within and around health care facilities (HCWH). Hospitals adopted *Health Care Without Harm* through the development of on-site farmers’ markets, food service reform, vending

reform, on-site gardens, and fast-food removal (Kulick 2005). Some hospitals grow and consume their own food using compost made from food scraps from their own kitchen (Bowmer 2006). In many facilities fresh, local produce and meats are prepared by trained chefs from the restaurant sector, giving hospital food a healthy and tasty make-over (Sayer 2005; Bowmer 2006). The chefs and food service directors of hospitals also take on the tasks of connecting with farmers to identify products, delivery times, and level of processing required.

2.3 Tourism and Conferences

An increasing trend for hotel-conference centers is to request local and/or organic meals for conference attendees because of the consumers' desire for quality (Miller 2006) and food safety (California Hotel & Lodging Association). Producers could benefit from providing large amounts of food to these short-term markets depicted in Figure 9. To develop a menu that includes local food, conference organizers contact the hotel or conference hall food service staff or caterers; the organizer also contacts the producers and established the delivery dates and times and the condition in which the product should be delivered, i.e. washed, frozen, and bagged. Similar to schools, conferences usually have a predictable attendance number that is used by farmers to plan their production calendar in advance. This assures the farmer a secure market and the conference center the freshest produce possible.

Food tourism has become more popular with the Slow Food Movement (Petrini 2006; Selfa 2005). Wisconsin's food based tourism initiative and 'Buy Local, Buy Wisconsin' initiatives at the state level aims to increase local purchasing by 10% (Nilsestuen 2007). There are guides for touring Wisconsin to taste wine, cheese, fruit, and

to visit farms (REAP Food Group -Farm Fresh Atlas). Bed and breakfast resorts purchase and serve local foods and products (e.g. Crystal Creek Inn, The Residence, Pinehurst Inn). The tourism dependent economy of Bayfield and La Pointe, Wisconsin benefit further from food tourism.

2.4 Chefs, Caterers and Restaurants

A combined short- and long-term market group shown in Figure 10 brings varied advantages and disadvantages both the producer and consumer. As a marketing technique restaurants across the US are touting their local food options to pull in conscious consumers. Examples include The Farmers' Diner in Vermont, The White Dog Café in New Jersey, and many in Wisconsin such as L'Etoile Restaurant & Café Soleil, The Rittenhouse, Deep Water Grill, 2nd St. Bistro, Black Cat Coffee House and Vegetarian Café, Viagio's Italian Café, and The Good Thyme Restaurant. In some cases, the chefs source the food, while in others the producer approaches the restaurant. Most restaurants, chefs, and caterers do not directly contract producers to supply food, because of the convenience of ordering and receiving deliveries from one distribution vendor service. These distribution services provide consistent prices, quality, availability, and are covered by liability insurance. A local food distribution service could provide this same service to local restaurants and other institutions, but the prices may not be as competitive.

The website, Local Harvest, lists 303 restaurants in the US that uses local ingredients though there are probably many that are not registered (www.localharvest.org). This on-line advertisement program and other similar programs pose a challenge for many restaurants that have limited experience with computers and

the Internet and have limited time to learn. The Chefs' Collaborative is a national organization that advertises and supports chefs and restaurants that source local food or would like to transition into sourcing local foods (www.chefscollaborative.org). A Chequamegon Chefs' Collaborative is in the beginning stages and would benefit from local food system research.

2.5 Community Supported Agriculture

Community Supported Agriculture (CSA) is a rising trend in the alternative marketing model. The CSA model is highlighted here because of its endurance throughout the alternative food movement for over twenty years. This model allows consumers, both businesses and households, to purchase a seasonal share in a local farm, which supplied fresh, typically organically grown produce (Lass 2003) to the consumer on a weekly basis. The CSA model has been practiced in the United States since the 1980's (Lass 2003). In 2005, the USDA reported that 1,144 CSAs operated in the US and 26 in Wisconsin (Adam 2006). Based on Hird (2003) many CSAs are developed on ethical values as listed below:

- Originating from the closest practicable source or the minimization of energy use
- Not containing harmful biological or chemical contaminants
- Fairly or cooperatively traded
- Non-exploiting of employees
- Environmentally beneficial or benign in its production
- Geographically and affordability accessible
- High animal-welfare standards
- Socially inclusive of all people in society

- Encouraging knowledge and understanding of food and food culture

CSAs differ from the previously mentioned markets because of quantity and distribution locations. CSAs have multiple distribution locations, with small (family-sized) quantities. The other markets (restaurants, catering, schools, health care facilities, and conferences) have fewer distribution locations and increased quantity of food per sale. To scale-up the CSA model to fit a region requires higher yields and increased transportation and storage capacities. This market increase also requires more detailed scheduling of planting, harvesting, and processing. One expanded CSA model is to have multiple farmers produce for one CSA label in a cooperative. This could allow for more varieties, more shares, and longer distances. A cooperative could also benefit more than one farmer and reduce the need to compete among prices.

Another scaling-up model, similar to a CSA, is a brokering scheme where multiple farmers sell to an organization or ‘middle-man’ which then contacted the consumers and sold the goods. Producers and consumers benefit from a brokering system through centralized inspections, labeling, billing, transporting services, packaging, weighing, and more. Brokering usually has a small cost, but it could provide stronger markets which increased income, and does not require additional responsibilities to the producer. These different options indicated that CSA models can be expanded based on a regionally designed model unique to specific areas and demographics.

2.6 Common Theme

The different marketing opportunities have been utilized by local producers in many ways and in different areas, but there are a few things they have in common as shown in Figure 11. Documentation of the process of sourcing local food is scarce. There are few details available of what foods are purchased when, how and where it was stored, how it is transported and if value is added through preparation prior to delivery to the consumer. Also, there is little evidence about who is actually contacting producers and if this is part of their job or an added effort and if this activity was a burden (Allen 2006). Clarification of how food is sourced and who is sourcing is critical to creating a replicable model. There is also a lack of comprehensive data identifying how many schools, restaurants, conferences, and healthcare facilities are sourcing local food. The lack of local food project documentation is a challenge for current program development, yet it is an opportunity for projects or organizations to research and develop replicable models.

Producers may struggle to find local markets because export markets may purchase more with consistency (Figure 8). Producers may manage many inputs, but may earn very little of the profit made on the final product. The multiple exchange of the product increases the costs. The local, national and global products could be marketed within the same location as local products, making local products difficult to sell because of lower costs, larger quantities, convenient access for consumers, and advertising campaigns (Halweil 2005).

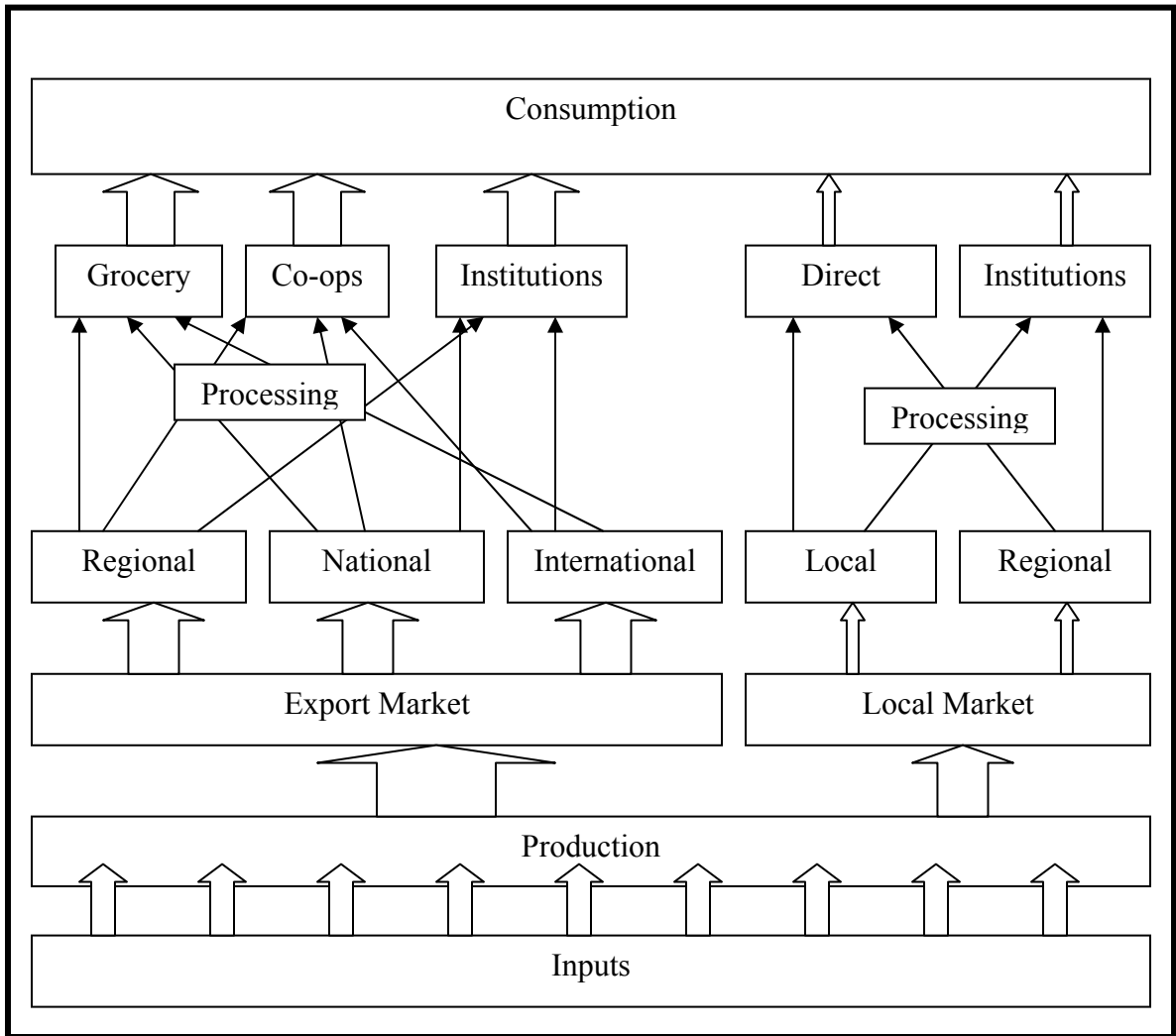


Figure 8. Market Map

2.7 Local Food Guides

Since 2002, REAP Food Group has brought the total number of Wisconsin atlases to five. The concept of the atlas is to advertise local producers and the products they have available to individual consumers. An atlas consists of listings of producers with contact information, food related events such as farmers' markets and festivals, and usually a map of the region being represented.

Atlases began in paper form, but many atlases are becoming web-based. The website www.localharvest.org lists farmers' markets and family farms across the US. The website www.savorwisconsin.com lists Wisconsin based producers, restaurants, farmers' markets, locally grown products, and products labeled with "something special from Wisconsin" labels. Listings in the databases are free and accessing the databases for information is free. The advantage of the web-based 'atlas' is the ease and reduced cost of updating the information. The disadvantage is relying on an internet savvy consumer base to navigate to the website.

2.8 Sustainable Chequamegon Initiative

The Chequamegon Bay region has been working towards sustainability for at least 10 years with the creation of organizations like, the Alliance for Sustainability and the FEAST Council. Within the past three years community interest peaked with wide participation in study circles around the book, *The Natural Step*, sparked by Sarah James and Torbjorn Lahti's attendance at the Sustainable Sweden Conference held in Ashland in February of 2005. Soon after the completion of the study circles, Ashland, Bayfield and Washburn agreed to use the Natural Step process to work towards becoming eco-municipalities.

These cities relied upon the Alliance for Sustainability for guidance through a comprehensive sustainability plan that sets goals for every part of the cities' responsibilities. Within this plan was a section focusing on food systems, a topic taken on by the FEAST Council. FEAST has been working with food systems in Ashland and Bayfield Counties since 1998. One successful FEAST project is the Mobile Farmers' Market.

The Mobile Farmers' Market is a unique partnership between FEAST and local producers which creates greater access to fresh, locally grown produce in Ashland and Bayfield Counties. The goal of the market is to promote the use of Senior and WIC Farmers' Market Nutrition vouchers, provide nutrition and food assistance information to the public while supporting our local producers to establish new markets. Each week, from July to October, the Mobile Market truck visits one of three communities of the Chequamegon Bay area of Wisconsin: Red Cliff, Iron River, Drummond, Barnes, Glidden, Butternut, and Mellen. The Mobile Market manager organizes markets and sells produce so that all the profits go back to the farmer. A nutrition educator or volunteer from the UW Extension is also available at all markets to share recipes and information. The Mobile Farmers' Market has increased the number of markets and producers yet reduced the costs of the markets (Spernoga 2005). Building upon this success, the FEAST Council would like to meet other goals and objectives by strengthening and creating local markets.

According to the 2002 Census of Agriculture, within Ashland and Bayfield counties there were 695 farmers and 170,547 acres of land in farms. Data on the number of farmers who marketed products locally were not available, nor was information on the acres of land that are in production for local markets. Research showed that farmers are increasingly turning to off-farm income sources to survive (Huffman 1980), though there is income to be made from agriculture practices in the Chequamegon Bay region. Agriculture contributed \$5.8 million dollars to Ashland County's total income and \$9.3 million to Bayfield County's total income. This income data did not specify how much income was generated from within the local economy and from outside the local

economy. The high number of dairy farms in this region can take credit for most of this income, though the milk is exported out of the community for consumption. The milk production of the region exceeds the population's consumption. Based on the demographics and population of the area, the assumption could be made that the majority of farming income comes from selling agriculture products outside of the region, not locally. This means that the agriculture products were transported out of the region with the use of non-renewable fossil fuels which are declining in availability, contributing to global climate change and high fuel costs. At the same time, processed foods are imported into the region to feed its population.

FEAST is spearheading a solution for this problem: strengthening and creating local markets. The two counties provide a diversity of products such as dairy, meat, nuts and seeds, grains, honey, maple syrup, vegetables, and fruits. Most of these products could be sold to local consumers, but the marketing connection is weak. If local markets were efficiently developed, producers could increase their income and create a stable regional food system. The research study analyzed potential opportunities for direct marketing in the Chequamegon Bay Foodshed presented in the next chapter.

Regional food system development requires deep evaluation of the current local food system through surveys and interviews of the community members within the region, which includes both producers and consumers. Once information is gathered and analyzed, then the task of designing a regionally appropriate system is at hand. Information gathered from other food system projects is used to develop the recommendations to remedy the barrier results of this research. From research observation, food system development is sponsored in the Chequamegon Bay by

community organizations, colleges, state extension services, and many other diverse means.

In the process of food system development other researchers and programs divide portions of the system into manageable parts. These parts consist of grocery stores, farmers' markets, schools, hospitals, hotels, conference centers, restaurants, community meal services, processing, packaging, marketing, transportation, storage, and nutrition. Within each category there are specific parts to consider. Separation of the parts seemed necessary for evaluation, but a cohesive approach to a regional solution can be lost with the division. Reformation of the common process is required to maintain the regional approach to the regional issue. This research would add to the current knowledge available in the literature by providing a framework to categorize local markets, develop surveys for interviewing producers and consumers, create a guide for how to assess a community for local food system development, create a contact guide for producers and consumers specific to the Chequamegon Bay Foodshed.

Chapter 3: Methods

3.1 Research Location

The research site is in Wisconsin located in the northern region of the US.

Wisconsin is the solid shaded state in the map in Figure 9.



Figure 9. Wisconsin within the United States

*Wisconsin Geological and Natural History Survey Website, 2002, Bedrock Geology of Wisconsin Map (1981, revised 1995).

www.vulcan.wr.usgs.gov/Images/Gif/VolcanicPast/Stat.

The northern region of Wisconsin had a unique geography that created a bay in Lake Superior. This bay is called the Chequamegon Bay and is depicted in the map in Figure 10. Ashland, Washburn, and Bayfield are three major towns in this region. The two counties of Bayfield and Ashland were represented in this study.



Figure 10. Wisconsin and the Chequamegon Bay
*Janes and Gallagher, Midwest Educational Graphics (2007)

3.2 Research Design

Qualitative and quantitative information was gathered from producers and consumers through interviews. The interview guides were developed after researching other similar local food-based community research projects. Interview guides list topics and questions the interviewer must cover during the interview in order to obtain information that can be compared to other interviews. The consumer interview guide asked different questions than the producer interview guide, though the guides complimented each other. A Practical Farmers of Iowa research report on grocery and hotel, restaurant, and institution (HRI) study was a guide for developing the research objectives and methods (Huber and Karp 2000). A research report from the Leopold Center for Sustainable Agriculture provided information on the initiative for creating a

local food system in Grinnell, Iowa. This report helped form the objective to gathering information to assess barriers for producers to market to institutions (Andelson 2006).

Developing the Producer Interview Guide

The producer interview guide was similar in question categories as the Young/Beginning Farmers survey conducted by the Agricultural Extension Agent in Bayfield County, Wisconsin (Appendix A). The question categories were off-farm work, production, health insurance, sales, and educational resources. Research by Timmons (2006) influenced the interview questions focusing on current local food supply and the potential to feed people within the two-county region of the Chequamegon Bay. The North Central Initiative for Small Farm Profitability (2006) provided information to include questions regarding meat raising, slaughtering, packaging, delivering and storing. With the guidance of the questionnaires and surveys a preliminary producer interview guide was created (Appendix B) and conducted in Stevens Point, which served as a pre-test and training opportunity for interviewing producers. After the preliminary study was completed a final producer interview guide was created (Appendix C) for the Chequamegon Bay.

Developing the Consumer Interview Guide

The North Central Initiative for Small Farm Profitability (2001) surveyed consumers to better understand how and why people purchase local foods. This influenced the questions regarding where food is purchased and form of the purchased food (frozen, chopped, canned, etc.). A report on issues facing producers trying to market to institutions by the Practical Farmers of Iowa also influenced the producer and consumer interview guide development and research design. The topics within the report

were prices, consistent food quality, standard packaging, available supplies, demand for meat, ease of ordering, delivery, dependability, transportation and distribution, food safety, and producer and consumer commitment (Huber 2002b). A Leopold Center Progress Report on institutional purchasing of local meats was helpful in developing questions about price, marketing, and communication between producers and consumers (Enshayan 2005). With the guidance of the questionnaires and surveys a preliminary consumer interview guide was created (Appendix D) and conducted in Stevens Point, which served as a pre-test and training opportunity for interviewing consumers. After the preliminary study was completed a final consumer interview guide was created (Appendix E) for the Chequamegon Bay.

The Frameworks Institute used focus groups to identify how people viewed the food system (Bostrom 2006). A part of this study focused on the ethical purchasing of food. The ethics behind food production (e.g. grass fed beef vs. feed lot beef) also impact food consumption. The values people placed on food based on their personal ethics of how food should be raised or grown affects their purchasing decisions. This information led to the food ethics research questions asked to the consumers and the producers. Values and ethics are used in decision making and in opinion forming. The ethical reasoning for producers to produce food or for consumers to purchase and prepare food could influence the responses to the other interview questions. The ethical questions were asked last to give the interviewee ample time to develop trust with the interviewer in order to receive a more accurate response.

Developing the Community Forum

After the consumer and producer interviews, the individuals were invited by postcard (Appendix 1A) to come together as a community forum. The community forum of producers and consumers had an opportunity to create a ‘community-directed change program’ to be known as the regional food system. The community forum received the research results and recommendations prior to the forum. From this information the participants at the forum had the opportunity to prioritize the assets of a regional food system. Thus the model acts to “simultaneously advance theory and practice through fostering partnerships between academic researchers and educators and stakeholders in community food systems” (Gillespie 2006). Following the community forum the producers and consumers were encouraged to exchange information and develop communication ties. Lastly, the producers and consumers had the opportunity to apply for a listing in the first Chequamegon Bay Local Food Guide. Producers and consumers that participated in the research were contacted by telephone if they were not present at the research presentation. Local food guide applications (Appendix I) were also available at the 2008 Chequamegon Organic Research Education and Training Conference.

Sampling

The consumer and producer samples represent the population of interest within sustainable food systems. The consumer and producer samples formed a panel of informants, which were those involved in part of the action of sustainable food system development. In other words, key informants identified other informants in a process termed ‘snowballing’ (Weiss 1994). Informants were key components to the partnership model developed by the Cornell Cooperative Extension of Monroe County, New York,

for a Community Plant Food Project to link families with community systems. The partnership aspects of the model were the focus of this research. The “partnership model uses a community asset approach that emphasizes building community resources and expertise. Departing from the academy’s traditional ‘outside expert’ model, it recognized and depended upon everyone’s expertise and experience. With this the traditional boundaries between research and action, on-campus and community-based teaching, and experts and audiences become blurred and quite permeable” (Gillespie 2006). The partnership model engages the community on a level in which they could take ownership of the project and think critically about solutions. The GEM local capacity building model for healthy watersheds features this same approach (GEM 2004, 2006).

The partnership model has three key principles, 1) allow the community to lead the change program; 2) let that program evolve and inform the research; 3) the research findings will inform the change program while the community strives for sustainability. In an effort to evaluate and promote growth the Continuous Improvement Method (CIM) was developed. This method “emphasizes and illustrates constant refinement of partners’ knowledge and ability to adapt emerging interventions. CIM requires that innovation, analysis, reflection, and transformational learning permeate the process” (Gillespie 2006).

Initial producer samples were selected from two local groups by their willingness to participate. They were chosen from two groups that have shown interest in local or organic agriculture in the past. These groups included the participants in the farmers’ markets in Ashland and Bayfield Counties and those involved in the CORET group, Chequamegon Organic Research, Education, and Training, a program hosted by the local University of Wisconsin Agriculture Agent, Jason Fishbach. Based on the criteria and the

snowballing recruitment technique, 19 local food producers were interviewed for this study (Table 1) out of an estimated population of 35 producers in the study area.

Table 1. Producer Sample Diversity

Dairy	Meat	Fruit	Vegetable	Fruit & Vegetable	Community Supported Agriculture
2	3	9	7	6	4

[Note some producers fell into more than one category.]

The consumer samples were selected for willingness to participate and potential to serve as a consistently high quantity consumer for local producers, because they prepare meals for larger groups of people for most or all of the year. This included non-chain restaurants, community meal services, such as senior meals and the soup kitchen; and institutions, such as schools, hospitals, and hotel/conference centers. Based on the sample criteria and the snowballing technique, 15 institutional consumers were interviewed for this study (Table 2) out of an estimated population of 40 such institutions in the study area.

Table 2. Consumer Sample Diversity

School	Health Care	Restaurant
3	2	10

Every interview for each producer and consumer had some variation. This is because each producer is producing different fresh produce and in a different way. It is similar for the consumers, with different consumption levels and styles and diverse types of foods. Diverse foods provide a safety net for farmers because it reduces the potential hazard of complete loss and thus keep a food system economically viable. Diverse foods

are also important for a healthy diet. To capture the diversity of each producer and consumer, the variables should be open-ended.

The producers and consumers selected for the interviews are a ‘non-representative’ sample of all farming or consuming styles, values, and goals. Each farm had different resources, geographical locations, products, inputs, and history which did not represent all farms. For the purpose of this research, the producers were selected by the previous interest in selling locally. Each consuming institution had different consumer interests and tastes, marketing strategies, hours/days of operation, and resources which did not represent all consuming institutions. For the purpose of this research, the consumers were selected by their previous interest in sourcing local foods or their potential for creating and strengthening markets.

Developing Outreach Materials

1) develop and deliver a Chequamegon Bay Foodshed Opportunities brochure, 2) develop and deliver a Chequamegon Bay Local Food Guide for producers and consuming institutions, 3) present results of this study to local citizens in the Chequamegon Bay area via facilitated discussion in a community forum of producers, consumers, and interested community members along with a producer-consumer exchange, and (4) make recommendations based on lessons learned from the study results and literature review.

Chequamegon Bay Local Food Guide

Presentation participants and research interviewees had an opportunity to be listed in the first Chequamegon Bay Local Food Guide. Applications were available to presentation participants and interviewees were phoned or emailed to notify for sign up

(Appendix I). The completed local food guide can be found in Appendix 2A. Each producer and consumer listed in the guide received one copy for personal use by summer 2008. Fifty copies were sent to the FEAST Council and 50 copies were sent to the Alliance for Sustainability for distribution at their discretion.

Chequamegon Bay Foodshed Opportunities brochure

The Chequamegon Bay Foodshed Opportunities brochure included research justification, results, recommendations for current producers and consuming institutions, and recommendations for further research. The Alliance for Sustainability and the FEAST Council were sent 50 copies of the educational brochure to be distributed at their discretion. The completed brochure can be found in Appendix 3A.

3.3 Field Methods

To pretest the interviews, preliminary consumer interviews of Main Street restaurants in Stevens Point, Wisconsin were conducted in early fall 2006. Preliminary producer interviews were conducted late fall 2006 in the area of Stevens Point, Wisconsin.

Information was gathered from producers and consumers concerning barriers to a local food system through interviews. The interview responses were noted by the researcher. The producers were interviewed during the winter because the interviews were less likely to interfere with their work. This time also works within the university semester and vacation timeframe of the interviewer. School-based consumers were interviewed during the winter as well, because school was in session during this time. The rest of the consumers were interviewed during the summer. An average of three interviews was conducted on a typical day.

The producer interview guide covered topics in production, marketing, community group participation and ethics (Table 3).

Table 3. Producers Interview Questions

	Production
1	What products are you currently supplying/growing?
2	What quantities/acres do you produce?
3	Approximately when are your harvests?
4	Would you like to supply or produce more of any of these products?
5	(If yes, what are the barriers that prevent you from doing so?)
	Marketing
6	Do you have access to the internet?
7	Do you feel confident on the internet?
8	How do you learn about alternative production techniques or “best practices”?
9	Do you feel like you have enough access to information?
10	Are your products state inspected or certified? (If yes, what kind?)
11	Do you have liability insurance? (If yes, what kind?)
12	How do you currently market these products?
13	Are you able to sell all your products?
14	What do you do with left over products?
15	What are the characteristics of your consumers?
16	How do you differentiate your products from similar products in the market?
17	How do you price your products?
18	What is your level of satisfaction with the income from current production and sales?
19	Would you be interested in selling more food to local restaurants, hotels, and schools? (If yes, what specific places have or would you target?)
	Community Groups
20	Are you listed currently in a local farm atlas or other advertising campaigns? (If yes, how do they help your business?)
21	Have you tried or thought about cooperative marketing with other local farmers? (If yes, what was your experience?) (If no, what are your concerns?)
22	Would you like to meet with other farmers and/or institutions to discuss greater coordination of production and consumption of local products? (If yes, how would you organize these meetings/topics?) (If no, why?)
	Ethics
23	Why do you farm?
	Open ended- Conclusion
25	Has this interview made you think of any other topics that we have not discussed that you would like to bring up now?

The consumer interview guide included issues of consumption, storage, preparation, purchasing of food, and ethics (Table 4).

Table 4. Consuming Institution Interview Questions

	Consumption
1	How much food is served at this establishment on a typical day?
2	How many people are served on a typical day?
3	How is the menu developed?
4	Does the menu change for the seasons?
5	Does the current menu incorporate local food? (If yes, what kinds and where and who are they sourced?)
6	What products are purchased most frequently?
7	What products are purchased in the highest quantities?
8	What vegetables?
9	What meats?
10	What fruits?
	Storage
11	How often is food delivered?
12	In what form does the food arrive?
13	What is the refrigeration capacity?
14	What is the sundries/dry good storage capacity?
	Preparation
15	Is the food served prepared from scratch?
16	Does the facility accommodate preparing food from scratch?
17	Does the kitchen staff have the skill capacity to work with fresh vegetables, fruits, and meats?
	Purchasing
18	How is the food purchased?
	Ethics
19	What is the mission of the business?
20	Why do you work in the food preparation business?

The producers and consumers, in educational establishments of the Chequamegon Bay area, were interviewed between December 27, 2006 and January 22, 2007. The rest of the consumers were interviewed between August 1, 2007 and September 1, 2007. Information gathered from three public schools in Ashland and Bayfield Counties by the

Ashland-Bayfield County Americorps VISTA Volunteers was used in this research (Appendices E, F and G).

3.4 Analysis

Qualitative research analysis is different than quantitative research methods because the responses to questions can be rich with multiple answers to most questions. Therefore, the analysis relies on interpretation of responses and the grouping and counting of themes. Qualitative findings are demonstrated with quotations rather than statistics (Weiss 1994). The analysis of the information gathered was done by combining observations and data and personal experience. Qualitative data analyzed included years of operation, amount of land total, and amount of land in production. The results of the study can be used as recommendations for the community to develop a stronger local food system based on research of other food systems in the future.

The results from the interviews of the producers and consumers were organized into barrier themes and sub-themes. The theme analysis of responses was determined by the importance of the response. Each interview answered questions though the answer could lean either in a positive (no barrier) or negative (barrier) direction. The negative answers identified a barrier, therefore making it important in the identification of barriers. The frequency of the responses did not constitute the response as a more important barrier, because of the positive, neutral or negative responses.

Less important research results did not create a reasonable barrier theme or sub-theme and will not be mentioned in depth. The research results were revealed in a dichotomy of producer findings and consumer findings. After analyzing the interview

data, themes and sub-themes emerged for producer and consumer barrier identification.

The barrier identification meets an objective of this research.

Chapter 4: Results

The following results include barriers for producers and consumers. Each theme and sub-theme is discussed in descending levels of importance for each of the producers and consumers. The themes helped to guide the recommendations which will be presented in the discussion section of this paper. The barrier results were selected from a large variety of possible barriers that were identified during the interviews.

4.1 Producer Barriers

The first objective of this study was to identify producer and consumer barriers for developing a sustainable, local food system. Tables 3 and 7 briefly describe the main barrier themes, sub-theme barriers, and number of respondents. The first producer barrier was the producers' lack of extensive marketing such as poor advertising and product labeling. The second barrier was the producers' knowledge of marketing such as the ability to use the Internet to advertise or knowing how to market to specific customers (Table 5).

Table 5. Producer Marketing Barriers

Main Theme Barrier	Sub-theme Barrier	Number of Respondents
A) Lack of Extensive Marketing	1) Farming as a Supplement	10
	2) Market types	12
	3) Product differentiation	16
	4) Poor advertising methods	18
	5) Limited production	11
	6) Poor delivery	19
	7) Lack of storage	15
B) Lack of Marketing Knowledge	1) Poor internet skills and access	10 19
	2) Consumer characteristics	19
	3) Lack of convenient products	

4.1.1 Main Producer Barrier: Lack of Extensive Marketing

Marketing became a barrier theme because as one producer exclaims “it’s the hardest and most time-consuming part of farming.” The Lack of Extensive Marketing theme includes: 1) farming as a supplemental occupation, 2) market types, 3) product differentiation, 4) advertising methods, 5) limited production, 6) delivery, and 7) storage.

4.1.1.1 Producers Farming as a Supplemental Occupation

A barrier sub-theme for the marketing theme is farming as a supplemental occupation. The producers’ goal or reason for farming directly affects their need to market. Most of the producers were farming as a supplement to another income which created a market barrier. In Table 6, the reasons for farming are ranked highest at the top to lowest at the bottom. Some producers reported multiple reasons. Most (9) producers farmed because of concerns about food health and safety. The next highest reason (6) for farming was the evolution from feeding themselves as a homestead to selling excess food.

Table 6. Reason for Farming Sub-theme

%	Reasons for Farming	N= 19
60%	Food issues (chemicals, health, etc.)	9
40%	Evolved from homesteading	6
27%	Family farm (continuing and beginning)	4
13%	Retirement activity	2
7%	<i>Career change</i>	1

If a producer’s reason for farming was to make money or to lead in the market of strawberries, for instance, their marketing strategy would be extensive. Producers do not

directly claim to farm for profit, so the reasons for producing listed above support the theme of Farming as a Supplemental Occupation.

The way producers set prices supports the “Farming as a Supplemental Occupation” theory. Producers priced their products in a similar fashion so as to “not price as high as the Chequamegon Food Co-op” and to “not price as low as the County Market.” Producers were aware of the market prices and priced their products to make a profit. Though, no producer had a budget system to guarantee that profit was made from the sale of farm goods.

Another supportive finding in this study is that 12 out of 19 producers were relying on off-farm income. One producer exclaimed, “I work [off-farm] to support my farming habit.” This statement sums up the theory that most of the producers interviewed do not intend for farming to be their sole source of income. The income made from work off of the farm is either made by the lead farmer or by the spouse of the lead farmer. Dependence on off-farm income supports the basis for this research to increase the sales of locally grown food products to local consuming institutions in order to provide a more stable income for producers. As research shows, the producers would have to want to rely on farming as their sole source of income in order to be ambitious enough market more effectively.

4.1.1.2 Lack of Diverse Market Types Used by Producers

The lack of diverse markets was a barrier for producers relying on only one or two market types. The types of markets that producers reached out to were varied by the products they grew or raised. Most producers sold to restaurants (17) and farmers’

markets (14), which did not require the producer to carry liability insurance (Table 7). The less popular markets like grocery stores and gas stations (9), the Chequamegon Bay Cooperative (6), special events (3), and area schools (2) required liability insurance and/or large quantities of product. The barriers were liability insurance and product quantity, which is represented by the type of market. Fourteen out of 19 producers were interested in working with or increasing their current participation with these markets.

Table 7. Market Type Sub-theme

%	Market Type	N= 19
89%	Restaurants	17
74%	Farmers' Markets	14
47%	Stores	9
32%	Co-op	6
16%	Events	3
11%	Schools	2

The institutional markets that producers currently work with in the highest numbers were restaurants (17), because there are plenty of independently owned restaurants serving the Chequamegon Bay. The restaurants were also fairly flexible about using local ingredients for specials. Some producers sold to stores (9) either on their farm or stores owned by others within the community. Only two producers sold to schools because of the large quantity of product required to meet the market need. Schools also required the producers to be covered by a high-value insurance policy, which was expensive for a small farmer.

Fourteen out of 19 producers sold at farmers' markets, though only 6 out of 15 of the consuming institutions purchase at farmers' markets. Eighteen out of 19 producers

sold directly to consumers, though 11 out of 15 of the consumers purchased directly from farmers. No producers sold to corporate food vendors like Sysco or Rinehart, but all consumers purchased from vendors. This result shows that a change in market type could link producers with different consumers.

Although most producers were interested in new markets, there were discrepancies between current markets and consumption patterns. Figure 11 compares markets where producers sold with the markets consumers purchased from.

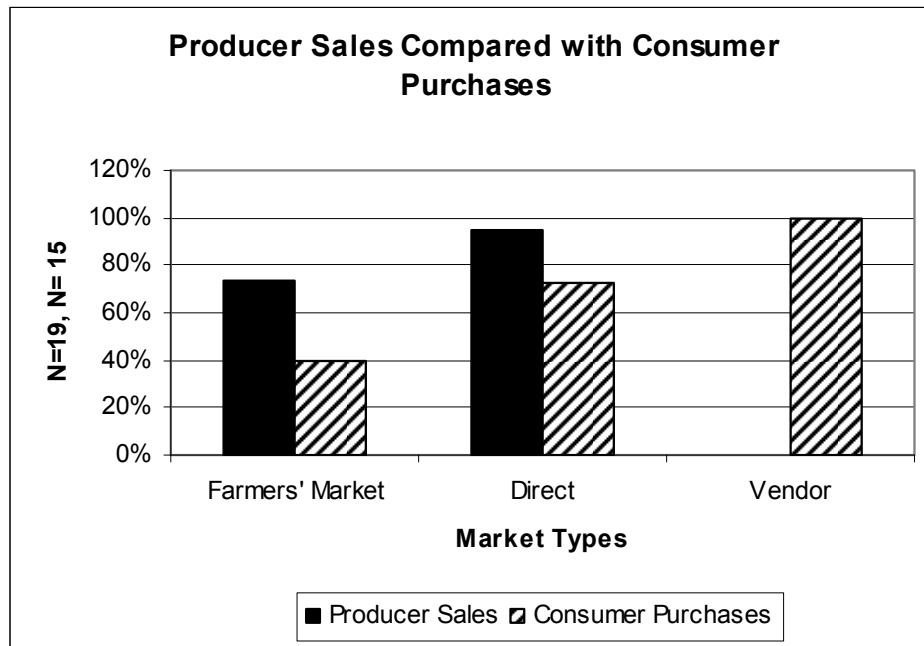


Figure 11. Comparison of Producer Markets with Consumer Markets.

The institutional consumer was less likely to purchase from a farmers' market because they're "serving food at the restaurant when the farmers' market is happening." Consuming institutions were accustomed to purchasing food that was delivered directly to the facility, so there was no extra work for the consumers. No producers sold to corporate food vendors like Sysco or Rinehart, but all consumers purchase from vendors.

Often producers (18 out of 19) would peddle their produce to restaurants (11 out of 15) after the farmers' market. So in a way the producers were delivering the produce like a vendor, but each producer had to take time from their day to deliver.

Though many producers sold at the farmers' market (14), they did not always feel it was worth their time. One producer said that farmers' markets were "constricted to small time slots," and another producer said that they "did the farmers' market a few times, but would have rather been in the garden." Producers (14) were interested in restaurant, store, and school markets so they did not want to be dependent on the farmers' market for their income, though most producers rely on off-farm income for their income. Twelve out of 19 producers rely on off-farm income to survive.

Results concluded that there was a lack of alternative marketing styles, such as Community Supported Agriculture (CSA) or cooperative marketing, amongst producers. This was seen as a barrier because CSAs and cooperative farming reduce risks in profit loss. Besides these alternative marketing strategies, most farmers did not engage in alternatives. For example, interviews revealed two CSAs that involved six producers; one was a cooperative CSA which included five of the producers that were interviewed. Alternative markets allow diverse avenues of income which could be more secure than individual, non-contracted markets.

4.1.1.3 Lack of Product Differentiation Used by Producers

Lack of product differentiation is a barrier for reaching consumers in conscious-minded markets. Most producers had low initiative to differentiate products from other producers through certifications, labels, or signage depicting organic, natural, grown

without pesticides, local, free-range, or grass-fed. Individual consumers had purchasing loyalty to products differentiated by origin, especially within the state. Products labeled local have more appeal to consumers than other labels (Brooker, Eastwood and Orr, 1987a; Brooker, et al., 1987b).

Along with differentiation of products with labels, there was organic certification. Out of 19 producers 17 are not certified organic because, “it doesn’t seem to matter because I can describe my farming techniques to consumers” and “certification takes time and money.” Producers were saving money and time by describing their growing techniques rather than relying on a national or regional certification symbol to portray their standards. According to Australian research on organic labeling versus origin labeling, consumers were willing to pay a higher premium price for local food than certified organic food (Paull 2006). A Washburn producer agreed by saying, “customers can’t afford the high prices of organics.”

Producers priced their products in a similar fashion so as to “not price as high as the Chequamegon Food Co-op” and to “not price as low as the County Market.” The producers understood the individual consumers of the region are “economically depressed” and did not want to price their products out of their range for fear of not selling anything. Producers tried to stay within the price range of other producers at the farmers’ markets in order to create a somewhat neutral market place. The demographics of the region were mostly middle class, blue collar, so the individual consumers were not able to pay high prices for food. So when those consumers wanted to dine out at a restaurant there was still a limit to their spending. Therefore, the restaurants could not

afford to pay high prices for local produce either. Institutions like schools and hospitals were also working with tight budgets.

4.1.1.4 Lack of Varied Advertising Methods used by Producers

Lack of varied advertising methods reduced public awareness of products available within the community. On-line advertising could be advantageous for tourists to gather information about local food options prior to arrival in the Chequamegon Bay, but the Internet (9) was not a secure source of advertisement for reaching the local consumers. Most producers used paper-based advertising in the form of brochures (8) and newspaper (10) ads, outside of the word-of-mouth advertising (19) (Figure 12). There was no evidence of a collective advertising campaign such as a farm fresh atlas or local food guide for the study region.

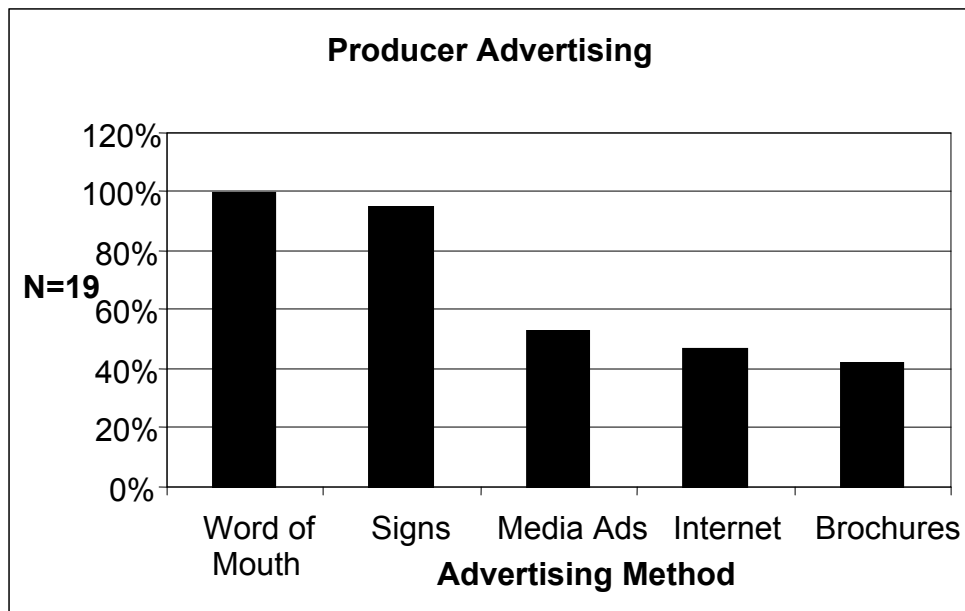


Figure 12. Producer Advertising Methods

4.1.1.5 Producers had Limited Production

Institutional requirements for liability insurance on farm products created a barrier for producers to meet the demands of institutions. Out of 19 producers 13 had liability insurance for accidents that may occur on their farm, but this insurance did not cover the products that left the farm through off-farm marketing at places like restaurants or farmers' markets. Only two producers had insurance that covered their products after purchase and consumption. Institutional consumers like schools, hospitals, and nursing homes required liability insurance to cover the food products until after consumption for the security of their business and for the safety of their customers.

Consuming institutions in the Chequamegon Bay are feeding a total of 5,045 meals a day, which is an average of 360 meals a day per institution. Local producers cannot supply enough food to meet this demand. The average number of acres needed per person per year to grow food has been declining as reported in 1996 to only 0.27 hectare per capita, which was 15% of the 0.5 hectare per capita considered minimal for a diverse US diet (Wakeman and Smith 2005). With only 350 acres in production for local food consumption amongst the 19 producers, more farmers are needed. There were potential opportunities for new farmers because five producers had unused land that they would consider renting to a new farmer.

Two producers reported to be limited in their production capacity. One producer was limited by "the lack of cleared crop land and irrigation capabilities" of her farm. Another producer was limited by "the only help I have are two interns" for the growing season. Twelve producers had employees, totaling 33 people. Paying salaries limits

profits for the farmer. Supply may be in jeopardy for the future because only six out of 19 the producers foresaw passing their farm along to family in the future. Once the current farmer retires, the land would either be sold or would lie fallow and unproductive, reducing the quantity of farm products available locally.

4.1.1.6 Producers had Poor Delivery Methods

A barrier to supplying institutional markets was the producers' unsecured delivery methods. Most producers reported having no current issues with transporting food, but if they increased production yields and acquired more markets there could be an issue. All those who transported products used personal vehicles, which were not adequate for keeping cool or frozen products from spoilage or contamination, reducing food safety. Most producers did not see delivery as a barrier to marketing to their current markets, though one producer who did not deliver believes that he "could sell more if I delivered."

4.1.1.7 Lack of Storage Facilities and Space by Producers

Lack of storage facilities and space is a barrier for producers to maintain a year-round income from dispersed sells of farm products. Out of 19 producers, 13 have cold storage space for limited time storage of fresh products, five have freezer storage for frozen products, and six have storage space for dry goods such as canned or dried products (Figure 13). The current storage operations meet the producers' current needs because only two out of 19 producers sell frozen meats and no producers sell frozen vegetables or fruits. No producers sell canned vegetables or fruits, except jams. One

producer commented that “a community cooler space would be useful.” Cooling produce between harvest and fresh marketing reduces spoilage and increases sales and income.

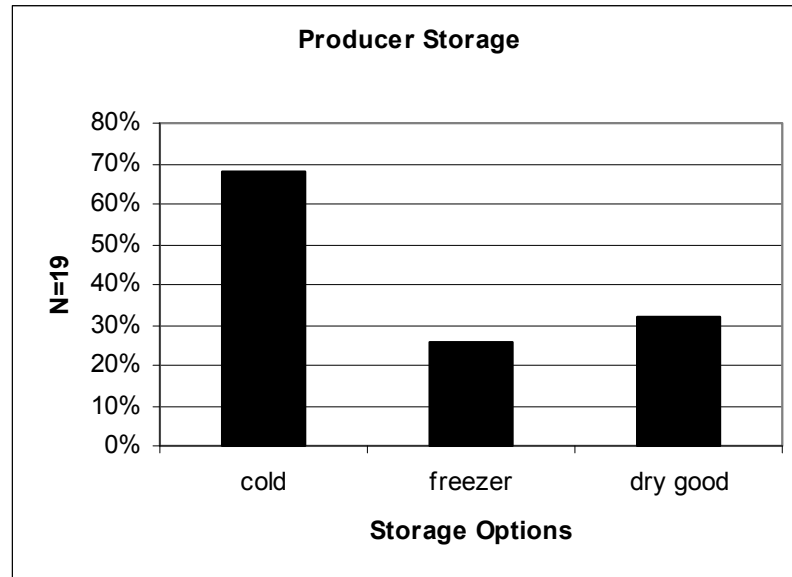


Figure 13. Producer Storage Sub-theme

4.1.2 Main Producer Barrier: Lack of Marketing Knowledge

The lack of marketing knowledge theme for producers includes: 1) Internet skills and access, 2) consumer characteristics, and 3) convenience products.

4.1.2.1 Limited Internet Skills and Access by Producers

Internet skills and access to internet by producers created a barrier to marketing because average people heavily use the Internet for resource gathering. Examples of Internet uses for producers are advertising through farming websites for product descriptions, photographs, and farming events. Though a few producers used the Internet to advertise their farm products most of the producers did not have access to the Internet

(eight out of 19), nor did they have sufficient skills to navigate the Internet. Only 12 out of 19 had some experience with e-mail. The rural setting of this region suggested limited Internet access. At almost all income levels, rural households were less likely to own computers than in urban areas. At all income levels, rural households were significantly less likely, often 50% less likely to have Internet access in the home than urban households (*Falling through the Net II*, 1998).

4.1.2.2 Producers' Perception of Consumer Characteristics

The producers' perception of consumers as individuals and not institutions was a barrier to effective marketing. The producers' knowledge of how to effectively market to specific populations or institutions was lacking. All producers responded to the 'consumer characteristics' question with only individual consumers in mind, not institutions that they currently market to, demonstrating that producers do not think about marketing beyond individuals. Producers labeled the characteristics of the consumers they encountered as most (16) dealing with locals and tourists or city dwellers (six) being the next highest (Table 8). One producer remembered a tourist family being very disappointed when visiting his farm, because it was not what they imagined it would look like and left without purchasing any produce. Marketing to specific populations or institutions requires deeper understanding of the consumers desire to purchase locally.

Table 8. Consumer Characteristics Sub-theme

%	Consumer Characteristics	N=19
84%	Locals	16
32%	Tourists, city dwellers	6
11%	Wealthy, highly educated	2
5%	Middle class	1

4.1.2.3 Producers' Lack of Convenience Products

The lack of convenience products is a barrier derived from not knowing the market demands and the skills to meet those demands. Institutions were similar to the individual household in their purchasing of convenience foods in the fast-paced world we have created. From 1991 to 1996, frozen food sales rose to 4.6 billion pounds in the United Kingdom (McKinnon, Campbell 1998). Out of 19 producers, only two sold frozen meats. No producers sold canned or frozen vegetables or fruits, except jams.

4.2 Consumer Barriers

The first consumer barrier was the consumers' inability to purchase local food. The sub-theme barriers under inability to purchase local food are 1) liability insurance requirements for local producers to sell to the consumer, 2) the high cost of local food in comparison to distributor prices, 3) local food supply not meeting local demand, 4) local food not in convenient condition, 5) limited storage space to stock up on local food when it is available, 6) and lastly, the unstable future of farming (Table 9).

The second barrier was the lack of consumers' desire to purchase local food. This barrier is based on the mission of the consumers' business.

Table 9. Consumer Barriers.

Main Theme Barrier	Sub-theme Barrier	Number of Respondents
Local Food Purchasing Inability	1) Require liability insurance	6
	2) High cost of local food	10
	3) Local food demand	12
	4) Demand convenient products	13
	5) Limited storage space	11
	6) Unstable future of local food	19
Lack of Cooperation to Purchase Local Food	1) Business mission	9

4.2.1 Main Consumer Barrier: Local Food Purchasing Ability

4.2.1.1 Consumer Liability Insurance Requirements

Consumer liability insurance requirement was a barrier that limits the type of producers that institutions can purchase from. All 15 consumers purchased food from corporate vendors, also known as wholesalers that delivered to the institution. These vendors carried liability insurance for the food products they sold.

Liability insurance is required by the institution for schools and health care facilities serving meals. Some producers carried liability insurance to cover anything that may happen to visitors or workers on the farm. Only two producers were protected by liability insurance that covered the food products after they left the farm and until after they were consumed. This insurance protected the farmer from being sued because of mishandling of food that may cause it to be unsafe and the harmful effects it may have after consumed. Corporate food vendors were able to guarantee liability insurance because they contract with very large growers that can afford the insurance. Small farmers with small incomes could not purchase the high-priced liability insurance.

4.2.1.2 High Price of Local Products Limits Consumers

Consumers may want to purchase local foods but they are contracted with the food vendors. Eight consumers mentioned that local food is “too expensive” to purchase in large quantities or year round. Six consumers use local ingredients as a menu “special” when it is “in season” because of high prices that “most customers can’t afford.” Vendors delivered an average of two deliveries a week from an average of three different vendors. The vendors contract with the consumers for a certain amount of purchasing per week and/ or month. If the consumer reduces spending with the vendor they lose the lower

rates or lose the vendor contract. Buying local food reduces the items to be purchased from the vendor and therefore could increase the costs of the items purchased from the vendor. These consumers are accustomed to receiving weekly deliveries and working with multiple food vendors, so another 'local' food vendor should not be an issue, but the costs of buying local are prohibitive.

4.2.1.3 Consumer Demand Overwhelms Production

The high demand of local food overwhelms the current production causing a barrier in the consumers' ability to purchase it. Out of 19 producers, 17 said they sold all the food they grew and a few said they could have sold more. Thirteen producers planned on expanding production in the next season (summer 2008), but no producers had contracted with consumers for the expansion and growth of products. The producers could be expanding in the direction that consumers may not demand and therefore the producers would not be meeting the demand and the consumers would not purchase locally. Institutions were feeding a total of 5,045 meals a day, which was an average of 360 meals a day. Five consumers said that there "wasn't enough local food to meet their demands" and seven said that "local food wasn't grown throughout the year" and thus did not meet their demands.

4.2.1.4 Consumers' Demand Products in Convenience Conditions

Fourteen out of 16 consuming institutions claim to purchase frozen and canned food. Six out of 15 of the consuming institutions purchase each frozen meats, vegetables, and fruits. Two out of 19 producers sell frozen meats and no producers sell frozen vegetables or fruits. Nine out of 15 of consumers purchase canned vegetables and six out

of 15 purchase canned fruits, though no producers sell canned vegetables or fruits, except jams. Seven out of fifteen consumers purchase canned tomatoes. (Figure 14).

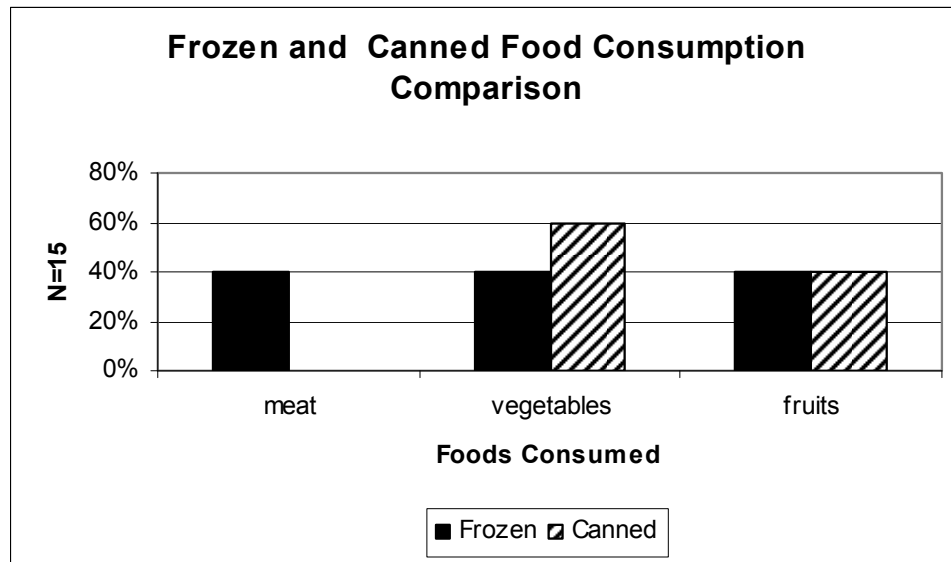


Figure 14. Frozen and Canned Food Consumption Comparison

4.2.1.5 Consumers' Lack of Storage Space

Storage space is a barrier because it is a major factor in the consumers' ability to purchase local foods while in season for frozen, canned, and dry storage. Producers may have storage barriers but the majority of the food is stored briefly then sold. The consumers would have find storage facilities to store the food longer because production occurs July through October and consumption is year-round, especially from September to May for most schools.

The fact that each consumer receives an average of two deliveries a week from corporate food vendors implies that there is high turn-over of products and that there is little space for stocking up. The study confirms that 11 out of 15 consumers said storage

space is “filled to the maximum on a regular basis.” Thus they would need an alternative storage or to invest in storage in order to buy more local products.

Out of 19 producers, 13 have cold storage space for limited time storage of fresh products, five have freezer storage for frozen products, and six have storage space for dry goods such as canned or dried products. Eleven out of 15 of the consuming institutions claimed that storage space in their facility is filled to the maximum on a regular basis leaving very limited space at the institution’s facility to store large quantities of local foods when they were ripe or when they were processed. In this scenario, both producers and consumers would have to individually invest in large cold, freezer, and dry good space to ease the traffic of local foods. Purchasing the storage space collectively seems like an effective solution.

4.2.1.6 The Unpredictable Future of Farming Limits Consumers

Losing farmland and thus local food availability is a consumer barrier to purchasing local food into the future. Only six out of 19 of the producers foresaw passing their farm along to a family member in the future, which meant that when the farmer retired the land would be out of production or available for purchase. This number was not surprising based on current trends of the reducing number of farmers and the increasing size of farms (Stoll 2006).

Encouraging a systematic change into local food purchasing requires time, patience, and a deep commitment to local food production. A system with a short life span would not be convincing for a consumer to be committed to the cause of local food purchasing. Recruiting consumers to purchase local food now would be most effective if a plan for continued purchasing of local food was being established.

There were 350 acres in production out of the 19 producers interviewed. This amount of land did not meet the current food consumption of the 15 institutions interviewed with a total of 5, 045 meals per day. Thirteen out of 19 producers in the Chequamegon Bay Foodshed planned to expand production next season and further, so they were not selling the farm yet, but it was the time to encourage new farmers to participate in the market. Five producers had unused farmland that they would consider renting to a new farmer, so the new farmer can gain experience growing and marketing a higher production yield.

4.2.2 Main Consumer Barrier: Lack of Cooperation in Purchasing Local Food

4.2.2.1 Consumers' Business Mission Influence

The mission of the business is a barrier to the purchase of local foods. The business owner would need to instill the desire of purchasing local into the mission of the business and then actively make purchasing decisions based on the mission. The employees would have to be trained to do the same. Out of 15 institutions six reported a mission to purchase local foods when available and when reasonably priced and when they fit into the menu (Table 10). This is a promising sign for local producers, but it is not enough to drive the consumer to purchase sufficient quantities of local food to sustain producers.

Table 10. Business Missions.

%	Mission	N= 15
40%	Serve local foods	6
33%	Serve quality foods	5
20%	Serve fresh foods	3
20%	Serve healthy foods	3
13%	Serve sustainably grown foods	2
13%	Serve good food	2
7%	Serve aesthetically pleasing food	1
7%	To be sanitary	1
7%	To address customer needs	1

4.3 Outreach: Chequamegon Bay Local Food Guide, Chequamegon Bay Foodshed Opportunities Brochure, Results/Recommendations Presentation at Community Forum, and Producer-Consumer Exchange

The outreach objective was designed to produce and disseminate educational materials with recommendations to inform decision-making, build awareness, and stimulate action steps to build and strengthen the Chequamegon Bay Foodshed community. Two primary outreach products were developed. The first was the local food guide, which listed producers and consuming institutions to encourage communication and the building of business relationships within the Chequamegon Bay Foodshed. The guide was sent directly to 47 individuals, while 39 guides were sent to the Alliance for Sustainability and the FEAST Council for distribution at their events. The second was the Chequamegon Bay Foodshed opportunities brochure to inform the public about the research recommendations and the possibilities for strengthening the local food system. The brochure was sent to the 47 individuals receiving the local food guide and 50 brochures were sent to the Alliance for Sustainability and the FEAST Council for distribution at their events.

Outreach education was also performed through a presentation and community forum event to share the results and recommendations of the study to a community forum of producers, consumers, and interested community members from the Chequamegon Bay Foodshed. The presentation event allowed producers and consumers to exchange information and to sign-up for a listing in the Local Food Guide. This outreach activity was accomplished on February 2nd, 2008 in Washburn, Wisconsin at the Washburn Public Library. Presentation press release and the presentation logistics and agenda can be found in Appendices O and P. The outreach activity to facilitate a community forum and producer- consumer exchange was also completed at the venue.

All research interview participants were invited to attend the forum and exchange by postcard announcements sent to their business (Appendix 1A). The participants tasted locally produced refreshments while listening to a presentation about the results and recommendations. Following the presentation (Appendix 4A), the participants gathered freely into groups to discuss the recommendations. Prompt questions were available to help spur discussion (Appendix L). Producers and consumers mingled freely amongst the group after the presentation.

Presentation participants and research interviewees had an opportunity to be listed in the first Chequamegon Bay Local Food Guide. Applications were available to presentation participants and interviewees were phoned or emailed to notify for sign up (Appendix I). The completed local food guide can be found in Appendix 2A. Each producer and consumer listed in the guide received one copy for personal use by summer 2008.

4.4 Results Summary

Producers may lack knowledge and cooperation to market strongly to a variety of markets. The barrier was an internal barrier within the producers' mission for farming, not an external barrier of limited number of markets. In juxtaposition to the producers, consumers lack the ability to financially purchase local foods. Though, similar to producers, consumers are restrained from purchasing locally grown food because of the instability of the quantity and quality of local food. The cooperation of the producers and consumers can overcome the barriers and in turn they can gain knowledge about marketing and communicating to build stronger business relationships.

The local food guide mentioned the benefits of buying local foods, how to use the local food guide, and who to contact for further editions of the guide. The guide listed twelve producers and eight consuming institutions in the Chequamegon Bay that are currently handling local foods or would like to in the future. The foodshed opportunities brochure informed the public about the research results and recommendations as well as further steps for advancing the Chequamegon Foodshed. Both publications are useful in educating the community about the possibilities for creating a sustainable, local food system. Both publications identify organizations to contact for further information on sustainable food system development.

The results and recommendations presentation was completed on February 2, 2008 in Washburn, Wisconsin along with the community forum and producer-consumer exchange. At the presentation and by phone, producers and consumers signed-up for a listing in the first Chequamegon Bay Local Food Guide distributed in summer 2008.

Chapter 5: Discussion

In this section, selected results that support a specific recommendation are discussed in the order of the least costly and least complex recommendation working towards the more costly and more complex recommendations. Part of the second objective of the study was to identify recommendations for the producers and consumers of the Chequamegon Bay Foodshed based on the research results.

All of the following recommendations within the discussion of this research are based upon the first recommendation, the local food cooperative concept. In a cooperative, producers and consumers would collaborate rather than compete and help solve common problems through supportive relationships. Cooperatives transcend pure economics towards building community around food. The cooperative would be comprised of many people who would actually decide upon the details of each of the recommendations. Interpretation of the data has led to the recommendations.

The local food cooperative is formed to provide all of the services of a corporate food vendor to benefit the producers and the consumers. Consumers purchase food from corporate food vendors who deliver their products directly to their institution after it is ordered by telephone. The various aspects of a local food vendor will be discussed in the following chapter. Each concept has been slightly modified from a corporate vendor view to allow a cooperative approach. The main branches of the local food cooperative consists of a 1) production schedule, 2) local food guide, 3) local food hotline, 4) local food label, 5) processing center, 6) storage center, 7) delivery system, and a 8) new farmer incubator program (Figure 15).

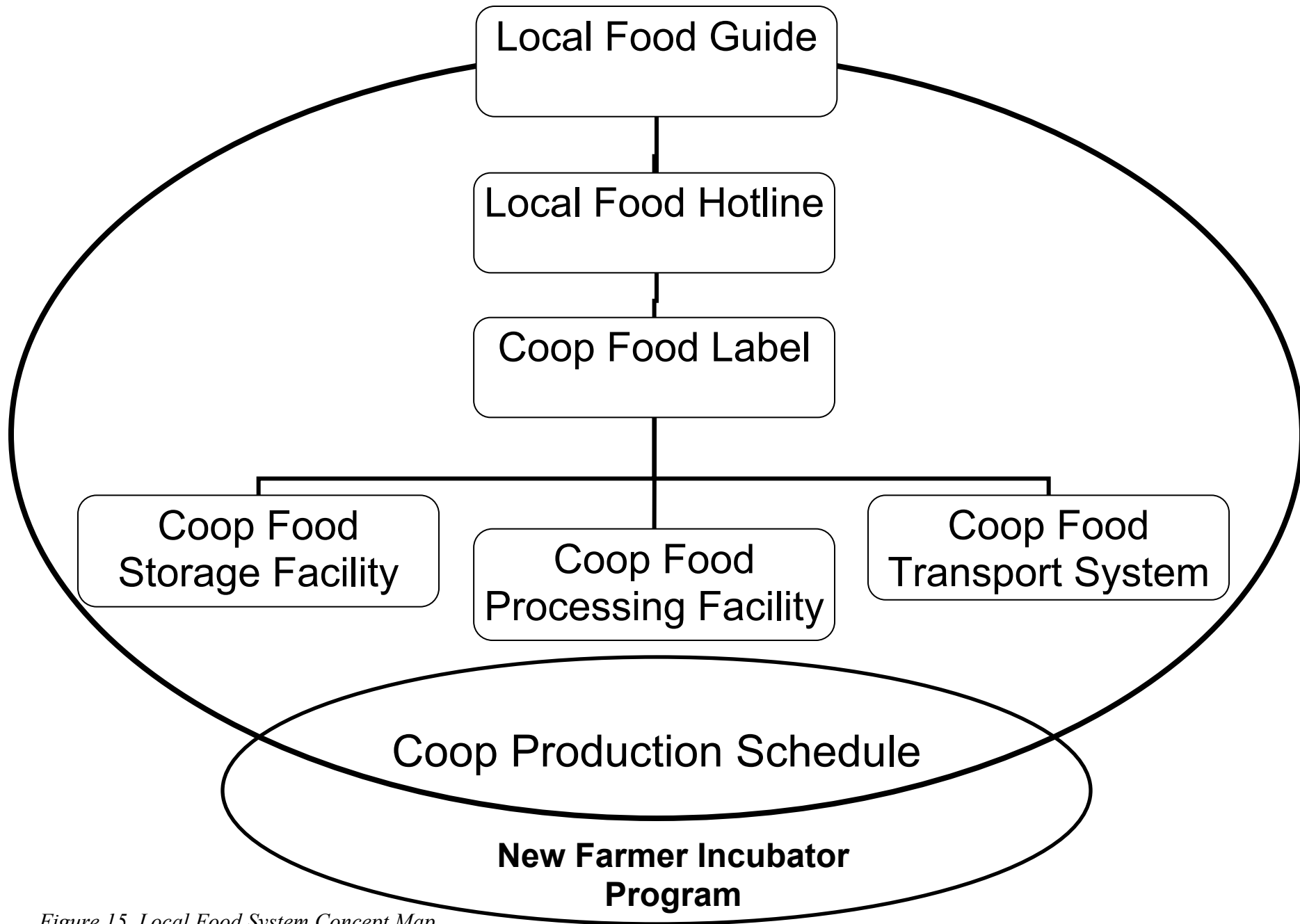


Figure 15. Local Food System Concept Map

5.1 Local Food Cooperative

A cooperative joining producers and consumers could be formed as a non-profit 501.C.3 or a for-profit limited liability corporation (LLC). Each cooperative style would need a board of directors that involved both producers and consumers. The cooperative would develop a strategic plan to increase local food production and purchasing. The cooperative will be a reflection of the goals of the individuals within the cooperative; the strategic plan will help the cooperative members reach their goals. This recommendation addresses the need for producers and consumers to communicate with each other to understand the market demands and what is available in the market at specific times (See Table 3: producer barriers B2, B3; Table 7: consumer barriers A1, A3, A4). This recommendation also addresses the lack of variety of markets by organizing multiple consumers into buffet of market choices or one stable market (See Table 3: producer barrier A2).

Including both producers and consumers was a unique concept since most cooperatives are formed by one interest party. The inclusion of the consumers allows for more communication about the market demands and encourages the consumer to understand the risks of producing food in order to appreciate the food and the farmer and vice versa. Cooperative development was not a new concept and has been taken in as the United States Department of Agriculture (USDA) rural development initiative. Two examples of successful cooperatives are Organic Valley and the Practical Farmers' of Iowa, which are listed in Box 1 and Box 2.

Box 1. Organic Valley Cooperative

One of the most successful marketing cooperatives functioning today is the Cooperative Regions of Organic Producer Pools (CROPP) which formed the brand name Organic Valley. This cooperative began with seven farmers on a very low budget and the producers had to take risks in order to be a part of the project. The unconventional 'new generation cooperative' is a great example for regional based cooperatives that support small, family farms. There are 400 farmer members in the cooperative and the cooperative employees 200 staff members.

The cooperative does not require producers to invest money up-front, but takes a little bit out of their payment checks until they have reached the investment quota. Shares are not traded and do not change in value. Producers are not required to produce a certain amount in order to be involved in the cooperative, but there is only enough producers allowed into the cooperative to meet the product demand. This allows producers to receive a premium for their products.

Farmers have decision making abilities in the pricing of products, marketing strategies and other organizational areas. The Board of Directors is controlled by farmers. Each produce category is grouped into producer pools, which meet monthly to make decisions. An elected representative from each pool reports back to CROPP management. Coop members get paid more up-front for the products they supply and receive 8% interest on their equity investment which is paid back in less than five years. Members have reported that they benefit financially with more stable pricing and that the money comes back to the farmer and not the cooperative (Powell, Lawless 2003). (www.organicvalley.com)

Box 2. Practical Farmers of Iowa

The Practical Farmers of Iowa (PFI) developed a local food brokering system. PFI is a grassroots, non-profit organization working to create commerce for Iowa producers and consumers. The brokering system connected Iowa producers to institutions and events serving food. A broker is the ‘middle man’ between the producer and the consumer. The broker arranges the purchase of food, picks up and delivers the produce, and manages the billing and payments, all for a small fee.

The biggest benefit of the brokering system is that neither producers nor consumers have to take extra time to distribute the local food, but each get what they want out of the transaction. Producers benefit from brokering by learning how to present their products to institutions. Institutions benefit from learning what foods are available seasonally. Both consumers and producers benefit from potential pre-season planning to insure profit for farmers and product for consumers. The community of eaters also benefit because the brokering system also provides educational cards for meal placements to inform the people who would be eating the local food (Hartmann 2003). www.practicalfarmers.org.

5.2 Production Schedule

A well organized group of producers could maximize the growing potential of their land and maximize their income by working together to schedule production. The concept was derived from the Chequamegon Cooperative Community Supported Agriculture (CSA) described in Box 3.

Box 3. Chequamegon Cooperative CSA

The Chequamegon Cooperative CSA is comprised of eight or more producers that collectively supply for food shares. The producers work together to meet the demands of the individual consumers through an intensive production schedule. Producers meet during the winter to discuss and determine a crop production schedule to provide enough food for the Cooperative CSA shares, their individual markets (such as a farmers' market stand), and for back-up production in case of a crop failure on another farm.

The CSA shares are distributed weekly throughout the Bayfield peninsula of Wisconsin. The producers need to have a variety of fruits and vegetables available every week so the producers depend on each other to provide the variety. The produce is transported to a central farm where it is boxed and loaded for delivery. The produce is delivered to multiple drop-off locations, where the share holders can easily pick up their box.

For more information please contact Tom Galazen at 715-779-3254.

The cooperative food production schedule encouraged the producers and consumers to work together to develop communication about the market supply and demand (See Table 3: producer barrier A5, A6, B3, See Table 7: consumer barriers A3, A4, A5, A6). For example, consumers can provide the producers with information about the foods they would like to purchase and the quantity and timeframe they would like. The producers could provide the consumers with the best timeframe for specific foods and the details of growing, harvesting, processing, and delivering the food. Producers and consumers could contract with each other to secure a consistent supply and income.

As with the Chequamegon CSA, the producers could schedule amongst each other a growing system that can allow for back-up planting for disasters from natural disasters or pests, crop rotation to reduce disease and pests, growing in selective soils, purchasing seeds in bulk, and to provide a more consistent food supply. Because most producers claimed to sell all the food they grow, if the back-up plants are not needed then they become an income-boosting opportunity either for immediate sale, personal consumption, or a value-added processing venture.

5.3 Local Food Guide

There was no local food guide for the Chequamegon Bay region. A local food guide, commonly known as a Farm Fresh Atlas, would provide listings of farms with contacts, the products available, and a map (Box 4). Farm Fresh Atlases are used to advertise farms to individual consumers. To reach the institutional markets where there could be a more consistent and substantial relationship, the atlas should be focused on the consumer-producer connection. The local food guide recommendation is a simple booklet with listings of local producers and products accompanied by listings of local consuming institutions that serve local foods or those that would like to do so. A local food guide would address the producer barrier of lack of variety of market types and improve advertising methods, while not requiring Internet access or skills (See Table 3: producer barriers A2, A4, B1).

Many communities have been developing websites for displaying available products from producers so that consumers can contact the producer for what they actually had to sell (Box 4). This concept may be promising for those producers who could navigate a website well enough to upload information and photos.

Box 4. Farm Fresh Atlases and Web-based Databases

Since 2002, REAP Food Group has brought the total number of Wisconsin atlases to five. The concept of the atlas is to advertise local producers and the products they have available to individual consumers. An atlas consists of listings of producers with contact information, food related events such as farmers' markets and festivals, and usually a map of the region being represented.

Farm Fresh Atlases of Wisconsin:

- 1) Farm Fresh Atlas of Western Wisconsin
- 2) Southern Wisconsin Farm Fresh Atlas
- 3) Central Wisconsin Farm Fresh Atlas
- 4) Farm Fresh Atlas of Eastern Wisconsin
- 5) Farm Fresh Atlas of Southeastern Wisconsin

www.farmfreshatlas.org

Atlases began in paper form, but many atlases are becoming web-based. The website www.localharvest.org lists farmers' markets and family farms across the US.

The website www.savorwisconsin.com lists Wisconsin based producers, restaurants, farmers' markets, locally grown products, and products labeled with "something special from Wisconsin" labels. Listings in the databases are free and accessing the databases for information is free. The advantage of the web-based 'atlas' is the ease and reduced cost of updating the information. The disadvantage is relying on an internet savvy consumer base to navigate to the website.

5.4 Local Food Hotline

The producers in the Chequamegon Bay were more likely to be familiar with a telephone. A recommended telephone operated message board system would be more user-friendly to both producers and consumers, who use the telephone for ordering from corporate food vendors. The system would be similar to listening to the movie listing at the local theater. The producer could verbally enter the products available and their contact information, so that the consumer could call and purchase the products they desired. A local food hotline would improve producers advertising methods, while not requiring Internet access or skills (See Table 3: producer barriers A2, A4, B1).

5.5 Cooperative Labeling

The recommendation of a local product label would help to differentiate products, identify a product as certified local, and to uniformly price products. As with the Superior Grown label concept (Box 5), producers could determine the criteria for the label and self-monitor the use of the label. A collective label would also provide an opportunity for multiple producers to fill a single institutional market. An institution would be more willing to purchase a large amount of a single product under one label for one price than the same product from 10 different labels/ producers with varied pricing. The collective label could also be insured under an umbrella insurance policy, increasing the opportunity for an institution to purchase the products. The Ashland Farmers' Market was insured under a similar umbrella insurance policy through the Chamber of Commerce. The umbrella insurance concept already exists and works in the region. The cooperative label would provide producers with product differentiation, while providing

easier purchasing ability for consumers (See Table 3: producer barrier A3, See Table 7: consumer barrier A1).

Box 5. Superior Grown Label

The cooperative local product label was derived from the ‘Superior Grown’ label that was developed over five years ago, but has been unsupported by project staff for at least three years. The label identified food products from the US states bordering Lake Superior (Wisconsin, Minnesota, and Michigan). The producers labeling their products as Superior Grown would have to agree to grow or raise their products by specific guidelines determined by the organization. These guidelines would be similar to the USDA organic standards, but the Superior Grown label would not cost as much and would be easier to apply for. The Superior Grown guidelines would be monitored by other producers in the organization in a peer reviewed fashion.

5.6 Cooperative Food Transport, 5.7 Storage, and 5.8 Processing System

The recommended cooperative food transport system could reduce the time producers spend away from the farm and the consumers will receive the food as usual. The transport system would protect local food supplies from farm to final destination (See Table 3: producer barrier A6). To reduce costs, interns could drive the truck during the production season and farmers could drive the truck during the slow season (See Table 7: consumer barrier A2). A cooler truck should be purchased first and then a freezer truck if needed. The truck could also haul dry goods.

The cooperative transport system was derived from the corporate food vendor services and the Chequamegon Cooperative CSA. The vendors brought food to the door

of consuming institutions and the cooperative CSA collects food from contracted producers (Box 3). Product delivery consists of picking-up and dropping-off, which function uniquely in the Mobile Farmers' Market (Box 6) and the Oklahoma Food Coop (Box 7).

Box 6. Mobile Farmers' Market

The Mobile Farmers' Market is a cooperative, traveling farmers' market sponsored by the FEAST Council in Ashland, Wisconsin. The Mobile Farmers' Market travels throughout Ashland and Bayfield Counties. Multiple producers meet the market manager at central locations within the towns. The producers supply the market and the market manager travels to remote towns and villages to sell for the producer. Often excess produce is donated to a local food pantry.

The Mobile Farmers' Market is non-profit so the producers receive the full price of their produce. The absence of mark-up prices makes the market popular for the majority of the population living in the low to middle income range. All producers participating in the market must be eligible to receive farmers' market food vouchers given to senior citizens and qualifying mothers in the Women Infant and Children (WIC) program.

For more information contact Amy Syverson at 715-685-0839.

Box 7. Oklahoma Food Coop

The Oklahoma Food Cooperative delivers food purchased from an on-line message board to members each month. Currently the all-volunteer based cooperative has 1350 members, 101 of them are producers that supply 2200+ items for the cooperative each month. There is a one-time membership joining fee of \$51.75 payable on-line with PayPal. This is the same process for ordering monthly shares as well. The ordered food share is delivered to 17 pick-up locations within the state. A pick-up site volunteer maintains the food and makes sure that members receive the correct order when they arrive to pick-up their food. For more information go to www.oklahomafood.coop/.

Together the producers and consumers could develop a site for cold, freezer, and dry good storage. Each space would allow multiple producers to store products at specific temperatures and humidity. The facility could also provide a washing and packaging station for produce that needed to store unwashed until before consumption. The cooperative storage facility addresses both the producers' and the consumers' lack of storage space for local foods (See Table 3: producer barrier A7, See Table 7: consumer barrier A5).

The food storage facility concept is derived from the Cooperative Distribution Center at the La Montanita Cooperative and the FoodRoots brokering system (Box 8).

Box 8. La Montanita Cooperative and FoodRoots Brokering

The La Montanita Cooperative in Albuquerque, New Mexico operates a Cooperative Distribution Center (CDC) that stores local foods between production and sale. The La Montanita Cooperative has four locations that sell over 1100 products from 400 producers. Producers can save on transport costs while tapping into more markets by using the CDC. The CDC consists 3,000 square feet of refrigerated storage, 1,000 square feet of frozen and 6,000 square feet of dry storage.

For more information go to www.lamontanita.coop/.

FoodRoots is a local food brokering system working with producers, processors and retail. FoodRoots assists producers with crop planning, provides delivery and storage facilities, and markets the produce to ‘pocket markets’ and small scale food processors. The ‘pocket markets’ are set up at specific events for high traffic and can be requested for events. FoodRoots provides to schools, preschools, home care, and events. FoodRoots hosts feasts to help educate the community about local food consumption.

For more information go to www.foodroots.ca/.

With a State-Certified kitchen, producers or consumers could process produce to add value through shelf life (Box 9) (See Table 3: producer barrier B3, See Table 7: consumer barriers A3, A4). Development and maintenance of a certified kitchen could cost a lot of time and money for an individual, but as a cooperative the costs could decrease enough so that everyone could benefit. There were many certified kitchens

noted in the community, but those kitchens were used on a regular basis for cooking and serving food; therefore, were not available for food processing by producers. The producers would need a separate kitchen or more to process food, which could take many hours and require specific equipment for canning or freezing or dehydrating. A certified kitchen could be modified to meet the processing needs, but organizing the use of the kitchen would be very important.

Box 9. Farm Market Kitchen and Fondy Food Center

The Farm Market Kitchen in Algoma is a project of Agricultural Heritage and Resources. This non-profit, agricultural-based incubator is a center for food-processing entrepreneurs and agricultural heritage activities and events in Kewaunee, Door, Brown and Manitowoc counties. This food processing facility is used by food entrepreneurs to add value to food through canning, chopping, drying, or freezing.

For more information go to www.algomafoodnetwork.wordpress.com.

The Fondy Food Center is sponsored by the Hunger Task Force of Milwaukee. The Food Center will provide a full service commercial kitchen incubator for agricultural-based entrepreneurs. The project's goals are to work against hunger and poverty in the inner city of Milwaukee by providing fresh, affordable food while providing opportunities for business and employment.

For more information go to www.fondymarket.org.

Processing of food could be spread out over the growing season, but most storable produce would be harvestable during late summer. During harvest time was when the kitchen would be in high demand. According to one apple grower, “everyone has a certified kitchen, because we all use one at the same time for Apple Fest,” so it would be impossible for them to share and make a profit. Organizing the flow of traffic in the kitchen would allow processors the time to complete the job without crowding out other processors. If the system is not smooth it is possible that the processors would not continue to use it.

5.9 Farmer Incubator Program

A new farmer land-leasing program would be beneficial to all participants as well as keeping the land fertile and active (Box 10). Organizing the flow of the number of farmers within the region was a key aspect to the continuation of the local food movement (See Table 3: producer barriers A1, A5; See Table 7: consumer barriers A2, A3, A6, B1). In order to maintain or increase the current level of local food a new farmer incubator program was recommended. The recommendation was to increase the number of producers to maintain or increase production levels and preserve farmland with a new farmer incubator program. According to the UW- agriculture agent, there were many young/ beginning farmers in the Chequamegon Bay practicing homesteading with the intention of developing into small farm ventures (Fischbach 2006). Some of these new farmers could not expand their production and knowledge because of the lack of access to farmland, either to lease or purchase. This experience would provide a smoother transition from retiring farmers to new farmers who would be trained and hopefully willing to expand their operation into the purchase of land and equipment.

Box 10. Farm Beginnings

The Farm Beginnings program begun by the Land Stewardship Project has been established in Michigan, Illinois, Missouri, and Southern Wisconsin. The program develops farmer networks of skilled farmers and new farmers. The skilled farmers teach the new farmers management, financing, and marketing skills. After matching a new farmer with a skilled farmer of a similar farm style preference the farmers learn sustainable farming practices. The new farmers set farming goals, access land and equipment opportunities and develop a farm plan.

For more information go to www.landstewardshipproject.org.

5.10 Recommendation Summary

The community recommendations are to develop:

- 1) Cooperative Production Schedule where producers could organize successive growing and harvesting to increase production to the maximum and provide a more consistent local food supply;
- 2) The Local Food Guide would increase communication between producers, consuming institutions and individual consumers;
- 3) The Local Food Hotline would provide communication of current local food availability and purchasing ability;

- 4) The Cooperative Food Label provides increased marketing opportunities by representing more food under one label than less food under 19 labels;
- 5) The Processing Facility provides similar marketing opportunities for value-added products, like canned tomatoes and frozen green beans;
- 6) The Storage Facility also provides food safety in controlling temperatures and humidity of storable food. The Storage Facility and Processing Facility both provide a longer timeframe for the consumption of local foods;
- 7) The Transport System increases the safety of food transport and distribution by controlling temperatures to reduce spoilage or contamination; and

And in order to maintain or increase the current level of local food productions the

- 8) New Farmer Incubator Program was recommended. The Incubator Program would provide rentable agriculture land to new farmers to gain more experience in producing higher yields and marketing. Once current farmers are ready to retire, the new farmers would have enough experience to confidently begin larger production to meet the local food demands.

5.11 Outreach Communication Benefits

Presentation participants discussed the research results and recommendations freely during the presentation. Many new contacts were made between the producers and consumers. One participant was a new entrepreneur in the area with a small, business in local food processing and distribution. Another participant was opening a restaurant to serve and process local foods. These two presentation participants supported the

recommendation of food transportation, processing, and storage providing evidence to the producers that the market is available or currently operating within the community.

The participants were almost equally divided into three categories of producers, consumers, and community members. Though the research study did not include community members their presence at the event shows that there is concern about the local food system in the Chequamegon Bay. A community supported cooperatives could be a valuable asset to the development of the local food system.

The local food guide is a simple advertising and communications tool for the producers and consuming institutions. The guide also includes the research recommendations for developing a sustainable food system in a concept map form. The guide is easily up-dated and is low cost for grass-roots organizations to take-in as an annual project. Two grass-roots organizations are noted as contacts as well as the Global Environmental Management Education Center at the University of Wisconsin-Stevens Point. The opportunities brochure is a simple educational tool to inform the public about the possible opportunities for the Chequamegon Bay Foodshed to develop a sustainable local food system. The brochure describes the recommendations in the form of a concept map.

Chapter 6: Conclusion

6.1 Summary

The Chequamegon Bay Foodshed was populated by a few strong local producer-institutional consumer market connections. According to the research there is potential to increase the markets between producers and institutional consumers through cooperative development. The recommendations presentation and community forum were discussion and thought-provoking events geared at bringing together the people to build a potential sustainable food system cooperative. The local food guide was created as a tool to connect producers and consuming institutions to strengthen the local food market in the Chequamegon Bay Foodshed. The opportunities brochure was created to educate the public about the possibilities for strengthening the local food system through sustainable actions through cooperation.

6.2 Major Findings

Research results indicated that there was not a lack of markets for producers, but a lack of cooperation and knowledge of marketing was discerned. Most producers were not earning a living wage from farming by choice not by lack of markets. One farmer admitted that he “works to support his farming habit” another producer said that if she “were too serious about farming, I wouldn’t like it so much.” The producers that were interviewed may not be earning a high income, but they seem to have low level of stress. On the scales of life, less stress seems to be the best option for the producers of the Chequamegon Bay Foodshed.

There was a lack of ability for consuming institutions to purchase locally grown food. Factors standing in the way of purchasing local were high costs- low budget, limited availability of products seasonally and in convenience conditions, and limited storage for stocking up on local foods when they are available. There was also a lack of cooperation to purchase locally outside of occasional seasonal ingredients for specialty menu items. Most of the consumers that were interviewed did not know about the benefits of local food consumption that are mentioned in the literature review. The cooperation to purchase local products would most likely come from gaining knowledge about local foods, placing a value on local foods, and finally making purchasing decisions based on those values. The recommendations presentation and community forum will inspire the community to become more educated and active in a local food marketing system. The local food guide is a simple communication tool that can help build a stronger market for local foods. The opportunities brochure will help educate the public about the possibilities for creating a sustainable local food system for the Chequamegon Bay Foodshed.

6.3 Future Research

The limitations of the research occurred during the interviews. The questions asked during the interview can only be answered to the satisfaction of the interview participants at that time. The producer interviews were conducted in the winter, which was best for availability of the producers, but may not have been a time when production was fresh in their minds. Most of the consumer interviews were conducted during the

peak production time of the year (August) though this is also the busiest time of year for most of the consumers, so the interview availability was limited.

The physical distance from the research site to the University of Wisconsin – Stevens Point caused a logistical challenge between the researcher and the community and thus, a disadvantage to the research. When working with a community and assessing their issues, ideally it would have been best to be a part of that community to gain greater trust and to better understand the situation. Fortunately, the researcher's previous four years of experience within the community provided that initial trust and understanding to begin the research, but the limited presence of the researcher hindered access to responses of the interviewees.

The physical limitation also contributed to the financial limitation of this study. The distance between the sites caused high expenses in travel and lodging, and thus limiting the amount of time spent in the community. Being a continuously active participant in the community would have benefited the research greatly.

Informing consumers about the benefits of local food is not the goal or job of producers. A community task force supporting the production and consumption of local foods would be a potentially effective solution. Continuing research in the area of community development and cooperative development may provide more opportunities for strengthening and creating institutional markets in the Chequamegon Bay Foodshed.

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Appendix A:

Young/Beginning/Aspiring Farmers in Ashland and Bayfield County Needs Assessment Survey

Thank you for your input on this important topic. Please take a moment to complete this survey and return it to:

**Jason Fischbach
Agricultural Agent
PO Box 218
Washburn, WI 54891**

Note: The more information you can provide the better, but only answer those questions you are comfortable answering.

Demographic Questions:

1. How old are you? (circle one)

16-22 23-29 30-35 36-40 41-45 46-50
51+

2. Did you grow-up in Ashland or Bayfield County? If not, where did you grow-up?

3. How long have you lived in Ashland or Bayfield County?

4. How far away does your closest family member (parent, grandparent, sibling) live?

0-25 mi 26-50 mi 51-100 mi 101-200 mi 201-500 mi 501+ mi

5. What is your marital status?

Single Married Divorced Widowed Live with significant other

6. If you have kids, how old are they? (circle all that apply)

Infant Toddler Pre-school Grade-school Middle-school
High-school

7. Do you currently own land? If yes, where?

Herbster-Port Wing-Cornucopia Area Odanah Area Mason-Sanborn-Benoit Area

Red Cliff-Bayfield-Washburn Area Ashland Area Marengo-Highbridge Area

Iron River Area Cable-Drummond-Grandview Area Mellen-Gurney Area

Other _____

8. If you don't live on your land, where do you live?

9. What is your total household yearly gross income? (circle one)

<10K 10-15K 15-20K 20-25K 25-30K 30-35K 35-40K >40K

10. What percentage of your yearly income is from agricultural products that you raise and sell?

11. If you don't currently sell agricultural products do you plan to within the next 10 years?

Work and Kids:

1. Are you the primary care-giver for children in your household?

2. How often do your kids go to day-care?

5 days/wk 3-4 days/wk 1-2 days/wk 1-2 days/month Never

3. How often do your kids go to a baby-sitter?

5 days/wk 3-4 days/wk 1-2 days/wk 1-2 days/month Never

4. How often do you baby-sit other kids?

5 days/wk 3-4 days/wk 1-2 days/wk 1-2 days/month Never

5. How often do family members (parents, grandparents, siblings) watch your children for you?

Once per week or more Once per month Rarely

6. If you work off the farm, where do you work?

Ashland Washburn Bayfield South shore towns Duluth/Superior
Cable

Other _____

7. How many hours per week do you work off-farm?

40+ 35-40 30-34 20-29 10-19 1-10

8. Do you have health insurance for yourself and kids?

Production Questions:

1. What do you currently grow/raise? (Circle those that you grow or raise, draw a box around those that you sell for cash or trade for goods or services)

Vegetables: Tomatoes Eggplant Peppers Carrots Beets
Parsnips

Greens Potatoes Summer Squash Winter Squash Snap
Beans Peas

Dry Beans Garlic Onions Cabbage Broccoli
Sprouts Other _____

Fruit: Apples Raspberries Blueberries Cherries Currants
Other _____

Dairy Beef Honey Flowers Grains Sheep
Goats

Chickens Eggs Turkeys Ducks Hay/Forage
Other _____

2. What do you plan to grow/raise within the next 5 years that you don't currently grow/raise? (Circle those that you grow or raise, draw a box around those that you intend to sell for cash or trade for goods or services)

Vegetables: Tomatoes Eggplant Peppers Carrots Beets
Parsnips

Greens Potatoes Summer Squash Winter Squash Snap
Beans Peas

Dry Beans Garlic Onions Cabbage Broccoli
Sprouts Other _____

Fruit: Apples Raspberries Blueberries Cherries Currants
Other _____

Dairy Beef Honey Flowers Grains Sheep
Goats

Chickens Eggs Turkeys Ducks Hay/Forage
Other _____

3. Do you currently process or add-value to farm products? (e.g. turn berries into jams and jellies). List the products that you make and circle those that you sell.

4. What kind of farming are you most interested in? (circle all that apply)

Vegetables Fruit Cattle Dairy Poultry Hogs
Honey

Flowers Eggs Grains/Row Crops Grass-Based Organic
Other _____

5. How do you currently sell your products? (circle all that apply)

Farmer's Market CSA Through a wholesaler Direct to
friends and neighbors

Direct to restaurants/processors Pick-your-own Other _____

Farm-Life Questions:

- 1. Please list specific goals you have as a young/beginning/aspiring farmer.**
- 2. Do you feel you are making adequate progress toward meeting your goals?**

3. What do you see as the two biggest challenges toward meeting your agricultural goals? (circle two)

Not enough time Small markets Lack of capital Lack of machinery
Lack of knowledge

Land is too expensive Kids Having to work off farm Lack of support from community

Low prices High input costs Labor is too expensive Other_____

4. What do you see as your two biggest production challenges? (circle two)

Clay soils Sandy soils Short growing season Weeds Insects and Disease
Deer

Fertility Too dry Too wet Other_____

Educational Assistance:

1. Which of the following educational topics are you interested in? (circle all that apply)

Business Plan Development Direct Marketing Farm Taxes Farm Programs(eg EQIP)

Certified Kitchens Small Grain Processing Wildlife Damage
Grazing Systems

Buying and Selling Cattle Buying and Maintaining Machinery
Livestock Nutrition

Harvesting and Storing Forage Organic Certification Processing and Selling Meat

Vegetable Breeding Fruit Cultivars Season Extension Soil Fertility
Permaculture

Other_____

2. What is your preferred way to learn about agricultural topics?

Field Days Panel Discussions Speakers Conferences/Workshops
1:1 Consultation

Study Groups Websites Flyers/Brochures/Papers
Other _____

**3. Which of the following farmer-support methods are you most interested in?
(check two boxes)**

- 1:1 Mentoring with an established farmer
- Grower support groups/teams
- On-farm internships (for pay and/or room and board)
- Farm incubators
- Workshops for beginning farmers
- 8-Week Beginning Farmer course (Land Stewardship Project)
- Issue oriented workshops/conferences (CORET, Fruit Growers Clinic, MOSES,

etc)

- Production cooperatives (group-owned equipment, bulk seed purchase, etc.)
- Marketing cooperatives (pooled product for larger markets)
- Value-added cooperatives (producer-owned value-added business)
- Micro-loans
- Women specific workshops, conferences (Heart of the Farm)

Other: _____

Appendix B:

Stevens Point Farmer Survey

What products are you currently supplying/growing?

Root Vegetables
Vegetables
Fruits/Berries
Meat/Poultry
Dairy
Mushrooms
Herbs
Nuts
Beans and Grains
Leafy Greens
Tree products
Other _____

What quantities/acres do you produce? Approximately when are your harvests?

Would you like to supply/produce more of any of these products?
(If yes, what are the barriers that prevent you from doing so?)

How do you learn about alternative production techniques or “best practices”? Do you feel like you have enough access to information?

University Extension
Gov't Programs (RC&D...)
Internet
Farmer to farmer
Conferences
Books
Newsletters
Other _____

Are your products state inspected or certified? (If yes, what kind?)

Do you have liability insurance? (If yes, what kind?)

How do you currently market these products?

Farmers market
Direct market
CSA
Distributor
Farm gate
Other _____

Are you able to sell all your products? What do you do with left over products?

What are the characteristics of your consumers?

How do you differentiate your products from similar products in the market?

How do you price your products?

- Competitive
- Cost of production plus mark-up
- Market price
- CSA (divided # of members)
- Willingness to pay
- Other _____

What is your level of satisfaction with the income from current production and sales?

Would you be interested in selling more food to local restaurants, hotels, and schools (specifically UWSP)? (If yes, what specific places have or would you target?)

Are you listed currently in a local Farm Fresh Atlas or other advertising campaigns? (If yes, how do they help your business?)

Have you tried or thought about cooperative marketing with other local farmers? (If yes, what was your experience?) (If no, what are your concerns?)

- Communication
- Cooperation
- Marketing
- Quality standards
- Packaging
- Delivery
- Price
- Others _____

Would you like to meet with other farmers and/or restaurants to discuss greater coordination of production and consumption of local products?
(If yes, how would you organize these meetings/topics?) (If no, why?)

Has this interview made you think of any other topics that we have not discussed that you would like to bring up now?

Appendix C:

Chequamegon Bay Producer Interview Guide

Producer Contact:

Production:

What products are you currently supplying/growing?

- Root Vegetables
- Vegetables
- Fruits/Berries
- Meat/Poultry
- Dairy
- Mushrooms
- Herbs
- Nuts
- Beans and Grains
- Leafy Greens
- Tree products
- Other _____

What quantities/acres do you produce?

Approximately when are your harvests?

Would you like to supply or produce more of any of these products?

(If yes, what are the barriers that prevent you from doing so?)

- Land
- Labor
- Capital
- Processing capacity
- Market
- Other _____

Marketing:

Do you have access to the internet? Do you feel confident on the internet?

What are some of your most reliable resources?

Are your products state inspected or certified? (If yes, what kind?)

Do you have liability insurance? (If yes, what kind?)

How do you currently market these products?

- Farmers market
- Direct market
- CSA
- Distributor
- Farm stand
- Other _____

Are you able to sell all your products? What do you do with left over products?

What are the characteristics of your consumers?

How do you differentiate your products from similar products in the market?

How do you price your products?

- Competitive
- Cost of production plus mark-up
- Market price
- CSA (divided by # of members)
- Willingness to pay
- Other _____

What is your level of satisfaction with the income from current production and sales?

Would you be interested in selling more food to local restaurants, hotels, and schools? (If yes, what specific places have or would you target?)

Community Groups:

Are you listed currently in a local farm atlas or other advertising campaigns?
(If yes, how do they help your business?)

Are you interested in cooperative marketing with other local farmers?

(Why or why not?)

(If no, what are your concerns?)

- Communication
- Cooperation
- Marketing
- Quality standards
- Packaging
- Delivery
- Price
- Others _____

Would you like to meet with other farmers and/or institutions to discuss greater coordination of production and consumption of local products?
(If yes, how would you organize these meetings/topics?) (If no, why?)

Ethics:

Why do you farm?

Open-ended Conclusion:

Has this interview made you think of any other topics that we have not discussed that you would like to bring up now?

Appendix D:

Chequamegon Bay Consumer Interview Guide

Consumer Contact:

Consumption:

How much food is served at this establishment on a typical day?

How many people are served on a typical day?

How is the menu developed?

Does the menu change for the seasons?

Does the current menu incorporate local food? (If yes, what kinds and where and who are they sourced?)

What products are purchased most frequently?

What products are purchased in the highest quantities?

What vegetables?

What meats?

What fruits?

Storage:

How often is food delivered?

- Daily
- Bi-weekly
- Weekly
- Monthly

In what form does the food arrive?

- Fresh, whole
- Chopped/ sliced
- Frozen
- Processed
- Canned

What is the refrigeration capacity?

What is the sundries/dry good storage capacity?

Preparation:

Is the food served prepared from scratch?

Does the facility accommodate preparing food from scratch?

Does the kitchen staff have the skill capacity to work with fresh vegetables, fruits, and meats?

Purchasing:

How is the food purchased?

Wholesale =

Retail =

Farmers' Market=

Direct from farmer=

Ethics:

What is the mission of the business?

Why do you work in the food preparation business?

Appendix E:

**Institutional Buyer Survey Information
Bayfield Fruit Orchard Task Force
8-Mar-07**

School	Level of Interest In Purchasing Locally	Breakfast	Lunch	Fresh Apples	Apple Products	Storage	\$/case
		#/day	#/day	case/wk			
Ashland	low			?			27
Bayfield	moderate	130	340		canned apples, sauce	cooler	
Butternut	unknown						
Drummond	high						
Glidden	unknown						
Mellen	high			0.75		cooler, freezer	26
Our Lady of the Lake	unknown						
South Shore	unknown						
Washburn	Very high	90	400	1.5	sauce, canned apples, dehydrated	freezer	25-44
Northland	Very high			3	sauce, canned, sliced	cooler, freezer	30

Threats and Challenges

- Price competition with commodities program
- Price competition with major distributors
- Season mis-match (storage and processing)
- Consistent quality and quantity
- Supplier organization and service
- School lunch budgets are low
- Heat-and-Serve kitchens

Opportunities

- Demand from parents for better food
- Growing support for local product, farmers
- The Washburn Success Story
- Commodity products are low quality
- Golden and Red Delicious are poor quality
- In-school processing capacity
- In-school storage capacity

Appendix F:

Eric J. Frank
AmeriCorps VISTA Volunteer
Red Cliff Community Food Project

Preliminary Feasibility Study Research Interview

Name of interviewee: Mary Jo Rabideaux
Date: 01.18.07

Interview

What institution(s) do you purchase food for?
Bayfield K - 12

What meals are provided on a daily basis?
B & L

How many meals are served on a daily basis?
130 B 340 L

How many people use your services on a daily basis?
340

What are the top eight food stuffs purchased?
Chicken nuggets, chicken patties, chicken breast, broccoli, carrots, cucumbers, green beans, corn, and California mix (broccoli, cauliflower, carrots)

Are special dietary considerations made for vegetarian, lactose intolerant, or other special dietary restrictions when ordering food products?
as needed

From what sources do you purchase the majority of the food provided?
Reinhardt, USDA surplus commodities

What are the annual total quantities of food stuffs purchased for meals preparation?
n/a

What is that quantity of food stuffs purchased for an average delivery/order?
n/a

How much do you spend on purchasing food annually?
n/a

How much do you spend per order?

What are the insurance liabilities or other purchasing restrictions that affect your buying patterns? **Local food isn't in season when school is in. Insurance is needed for processed foods.**

What is the decision making process that determines what source you purchase from?

Mary Jo

What local products have you been able to incorporate into your food purchasing?

Bayfield Apples

Have there been any limitations to your ability to purchase local products?

Quantity and availability

Have organic products ever been incorporated into your food purchasing?

no

Are you open to organic products? How does price affect your decision to buy or not buy organic? Would you be willing to pay more for organic products or no?

Price has been the limiting factor

What is your purchase and delivery schedule? Weekly, Bi-weekly, Monthly?

Bi-weekly

How do you store food? Dry, Frozen, Refrigerated?

Big walk-in cooler, and freezer – lots of refrigeration

Are the meals that are served more whole foods prepared for meals or more processed “heat and serve” meals?

Heat and serve

What would you change about the current food distribution system you participate in?

nothing

What products would you like to see more of or at a more affordable price?

Fresh fruits and vegetables at a consistent price

Some of the other information that Mary Jo offered were regarding the limitations of purchasing local food. Local producers don't produce many commodities on scales that are sufficient to major food consuming institutions. Her example was that she uses 50 lbs. Of carrots per week, and that amount of carrots just isn't for sale locally in that quantity at any point during the year. She also elaborated on the misalignment of the available local produce, which is primarily in the summer, and the school year that takes place primarily during the off seasons. This is especially interesting anecdotal info considering Mary Jo and her husband operate Rabideaux orchard.

Appendix G:

Eric J. Frank
AmeriCorps VISTA Volunteer
Red Cliff Community Food Project

Preliminary Feasibility Study Research Interview

Name of interviewee: Patti Holmann
Date: 01.16.07

“real food affordably”

Interview

What institution(s) do you purchase food for?

Washburn Elementary, Middle, and High Schools, and St Louis Catholic School (lunch only) as well as in-house catering services

What meals are provided on a daily basis?

Breakfast and Lunch

How many meals are served on a daily basis?

80 – 100 Breakfast 400+ for Lunch

How many people use your services on a daily basis?

400+

What are the top eight food stuffs purchased?

Lettuce, carrots, cheese, chicken, potatoes, oranges, bananas, apples, in-season fruits

Are special dietary considerations made for vegetarian, lactose intolerant, or other special dietary restrictions when ordering food products?

Yes

From what sources do you purchase the majority of the food provided?

Sysco foods, Reinhardt, and CESA 12 Coop

What are the annual total quantities of food stuffs purchased for meals preparation?

What is that quantity of food stuffs purchased for an average delivery/order?

How much do you spend on purchasing food annually?

About \$59,000 total in 2005-06 10k BF 6k a la carte 43k L

How much do you spend per order?

About \$5,000 per month or a little less

What are the insurance liabilities or other purchasing restrictions that affect your buying patterns?

None for unprocessed ag products

What is the decision making process that determines what source you purchase from?

Patti – Kitchen Manager

What local products have you been able to incorporate into your food purchasing?

Apples, Blueberries, Squash, Cucumbers

Have there been any limitations to your ability to purchase local products?

None when the price is affordable

Have organic products ever been incorporated into your food purchasing?

no

Are you open to organic products? How does price affect your decision to buy or not buy organic? Would you be willing to pay more for organic products or no?

Organic is not currently cost effective from the existing sources.

What is your purchase and delivery schedule? Weekly, Bi-weekly, Monthly?

Bi-weekly

How do you store food? Dry, Frozen, Refrigerated?

Lots of freezers, moderate dry, little refrigeration

Are the meals that are served more whole foods prepared for meals or more processed “heat and serve” meals?

Whole foods

What would you change about the current food distribution system you participate in?

Nothing at present

What products would you like to see more of or at a more affordable price?

Fruits and vegetables

Patti was very interested in the interview and the Red Cliff Community Farm Project’s goals. She would be an excellent resource for future anecdotal information regarding the food system.

Patti offered much qualitative information aside from the formal interview. For example Patti described how she has used creativity to win the hearts of the students and thus

encouraged them to eat healthier foods. She had many examples of the fun ways to get more whole foods into the school diet such as potato bars where students add their own baked potato fixings, homemade pizza, turkey wraps, and a menu that rarely repeats within a given month.

She also described a winning system that is contrary to the marketing by the food conglomerates. Her findings are that it is **more cost effective** to purchase whole foods prepared by a trained and efficient staff as compared to the “heat and serve” foods sold by the major food distributors as the economical way to feed large numbers of consumers. There are quantitative numbers to support Patti’s findings too. The year previous to Patti managing the Washburn Middle/High School Cafeteria the food costs were about \$.43 over per meal, which were primarily the conventional school lunches heavy with processed, sugar, preservative and fat laden, and not as nutrient dense as the whole foods served in the School now. Last year after beginning mid-year and having to use up the “heat and serve” food in storage, Patti was able to use whole foods prepared by an efficient kitchen staff Patti and reduce food costs to only \$.05 over what they need to be to meet to be on budget. This year Patti expects to be within budget having used whole foods prepared by her staff.

Another driving message learned in the interview is that economics drives the decision making process as much as anything. Patti purchases local when possible, and would purchase organic, but cost is the bottom line. She purchases bulk orders of specific commodities from CESA 12 buying coop because they buy in such quantities that they can drive down the costs with their [CESA 12] buying power. When she has purchased local products such as apples from Apple Hill and vegetables from Tetzner’s, it has been because they were more affordable than her conventional sources. She is aware of the superior quality of the produce grown locally and especially organically on the many levels of their superiority, but ultimately it is pricing that makes the difference in her buying patterns even though many parents have asked for an organic option for their students.

Another interesting point that was gleaned from this conversation and implied in the previous paragraph is that in many cases especially during the fall harvest season, Patti has found that local is more economical in some cases such as squash, apples, cucumbers, blueberries. She also would like to get more lettuce from the Roodes.

Because of the changes Patti has made in the cafeteria she has on average 80 to 100 more students using the school’s cafeteria services than last year, even though this year’s enrollment is down by the same margin from last year. Patti has received emails and personal thank yous from students and staff for the changes that have been made, and as such the Washburn cafeteria is no longer viewed as a joke. As a final anecdote, squash, which was recently slandered as a barely saleable commodity by the Chequamegon Food Coop, is the new rage in the school cafeteria with many hits such as sausage stuffed baby squash, and professed squash hating students are now asking for more.

Appendix H:

Chequamegon Bay Local Food Guide Proposal and Budget

DeNae Dandridge 2-21-2008

Purpose:

As the last objective in the research to strengthen and create markets in the Chequamegon Bay Foodshed, the local food guide will provide the fundamental tool for local producers to connect with local institutional consumers as well as individual consumers in the community. This guide will be the first to represent Ashland and Bayfield counties of the Chequamegon Bay.

Logistics:

The local food guide will include local producers and local institutional consumers. The listings will provide a contact person and phone number, a location, and a short description of the industry. Icons will be used to represent the specialties of the industries for quick reference. Other information that may be included are: a glossary of sustainable agriculture terms, contact information for local, regional, and state sustainable agriculture organizations, and a summary of the sustainable marketing research completed by GEM graduate student, DeNae Dandridge.

With about 35 individual listings the booklet will have about 10 – 14 pages, plus a cover.

Budget:

Contacting producers and consumers who participated in the research to register for the guide through phone and e-mail should not cost more than \$50 as long as DeNae can try to connect with them during weekends when she has free minutes on her cell-phone.

Distributing and collecting paper applications through at least three events hosted by the FEAST Council and the Alliance for Sustainability during the March for Food 2008 collaborative should not cost more than \$10 in postage.

The guide book design, formatting and editing will be completed by DeNae Dandridge, John Sheffy, and Ron Tschida as part of their regular work assignments, with no additional costs.

Printing 100 copies of the guide book will take place off campus at *DigiCopy* with DeNae's student discount, with the expected cost of \$90.

Distributing approximately 35 guides individually to the producers and consumers listed in the guide should cost no more than \$2.00 each. Thirty guides will be sent to the FEAST Council and 30 to the Alliance for Sustainability for distribution at their events, which should not cost more than \$15 each for postal fees. Four guides will remain with GEM and one guide will remain with DeNae Dandridge. At the cost of DeNae

Dandridge, two CDs will be burned with the booklet data that will be shipped with the FEAST Council and Alliance for Sustainability parcels and one CD for GEM.

Item/Task	Quantity	Price
Contacting producers/ consumers	35	\$50
Distributing & collecting applications	3 events	\$10
Design, format, editing	/	\$0
Printing	100	\$90
Distribution of guides	95	\$100
TOTAL		\$250

Appendix I:

Chequamegon Bay Local Food Guide Application

The Food Guide will include all producers and consuming institutions interested in local foods. This guide will provide opportunities for producers, consuming institutions, and individuals to improve the local food system.

Contact Person: _____

Farm/ Business Name: _____

Please check the category that describes your business:

Farm /Orchard Store Restaurant School Health Care

Farm/ Business Address: _____

County: _____

City: _____ State: _____ Zip Code: _____

Primary Phone: _____ Secondary Phone: _____

Fax: _____ E-mail: _____

Website:

Check if appropriate:

I do **not** want people visiting my farm

I do **not** want my e-mail address included in the listing

Please, provide a short description of your farm or business. (We reserve the right to edit descriptions for formatting purposes.)

If you are a farmer or food producer, please check all of the categories below that describe your operation.

Meat Poultry Cheese Fruit Vegetables CSA U-Pick
Eggs Honey

Herbs Flowers Maple Syrup Dairy Certified Organic (certifier:
_____)

Agreement:

I understand that the initial printing of the Chequamegon Bay Local Food Guide will be free of charge from the Global Environmental Management Education Center in the University of Wisconsin – Stevens Point. Costs of revised printings from here on after will be subject to the cooperation of local producers and institutional consumers. I also understand that no farm, food producer, or consuming institution will be discriminated based on production or business methods.

Signature:

Date: _____

Please Return to: DeNae Dandridge, 916 A 2nd Street, Stevens Point, WI 54481

Appendix J:

Chequamegon Bay Foodshed Research Presentation

UWSP Graduate student, DeNae Dandridge, will be presenting her research results and recommendations for strengthening and creating markets for producers and consumers in the Chequamegon Bay Foodshed. Following the presentation will be a community discussion on the recommendations, a producer and consumer 'speed-dating' event and registration for a Chequamegon Bay Local Food Guide.

All interested are welcome!

Date: Saturday, February 2nd

Time: 10:30 am

Location: Washburn Public Library Meeting Room

*For more information contact DeNae Dandridge at 715-292-3560 or ddand196@uwsp.edu

Appendix K:

Chequamegon Bay Research Presentation Logistics and Itinerary

DeNae Dandridge

Presentation Logistics

Date: Feb.2, 2008

Time: 10:30 am -12:30 pm

Location: Washburn Library Meeting Room

- * Room reservation from 10 am – 1 pm
- * 715-373-6172
- * Power Point Available
- * Seats about 75 people
- * Coffee/ tea urns available
- * Coffee mugs, silverware, etc. available

Refreshments

Tetzner's Milk (2 gallons) need pitcher- farm store

Apple Cider (2 gallons) Tom Galazen (\$7.50/gal.)

Ashland Baking Co. Bread

Apple Butter (one small jar) Bayfield Apple Company – County Market

Apple Mustard (one small jar) Bayfield Apple Company – County Market

WI cheese

Smoked Fish – County Market

Tea – Chequamegon Co-op

Honey – Highland Valley

Supplies

Name Tags

Markers

Itinerary

2-1-08

Leave Stevens Point Friday evening

Arrive in Ashland Friday Evening

Purchase refreshments and supplies

Stay at hotel or with friends

2-2-08

Purchase refreshments

Arrive at library at 10 am sharp

Set up refreshments

Set up tables/chairs

Set up power point

Greet people as they come

10:30 Local food guide registration

10:40 begin presentation

11:20 begin community forum in small groups

11:50 begin speed dating (5 or 10 minute intervals in small groups of producers and consumers, based on how many people attend)

12:20 Wrap-up and Local Food Guide registration

Clean-up and leave by 2 pm (library closes)

Leave for Stevens Point around 4 pm

PRESENTATION AGENDA

February 2nd, 2008

1. Registration (10:30 am – 10:40 am)
2. Presentation (10:40 am – 11:20 am)
3. Community Forum (11:20 am – 12:00 pm)
4. Discussion Wrap-up (12:00 pm)
5. Producer & Consumer Exchange (12:00 pm – 12:30 pm)

Appendix L:

Community Forum Discussion Prompt

1. How would you describe the organization of members in a local food cooperative?

2. What elements should producers and consuming institutions bring to a cooperative production schedule?

3. How could the printing of a local food guide be funded?

4. What production method criteria should be represented under the cooperative food label? Or should there be two or three cooperative labels?

5. How can the food processing facility, transport system, and the storage facility work together efficiently?

6. How can new farmers communicate their needs and desires with current or retiring farmers?