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Kandiyohi County: Local Food System Assessment

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FUTURE FOR SMALL COMMUNITIES."*

Kandiyohi County: Local Food System Assessment

WEST CENTRAL MINNESOTA

REGIONAL
SUSTAINABLE DEVELOPMENT
PARTNERSHIP

Communities and their University building Minnesota's future

This project is also supported by the University of
Minnesota West Central Partnership

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Center for Small Towns

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The University of Minnesota West Central Partnership (WCP) is one of five University of Minnesota Regional Sustainable Development Partnerships, a legislatively funded initiative led by citizen leaders in each region. The Partnership is committed to leveraging University resources to sustain Minnesota's natural resource based economy and empower citizen participation and leadership. Since its inception in 1999, WCP has supported and partnered on 70+ applied research and education projects in 12 counties of the Upper Minnesota River Valley watershed. www.regionalpartnerships.umn.edu

Table of Contents

What is a Local Food System?	2
Kandiyohi County Local Food System Steering Committee	3
Background	4
The Food System.....	4
Kandiyohi County.....	8
ASSESSMENT GOALS.....	18
Specific Objectives.....	18
Procedures.....	18
Logic Model of the Kandiyohi County Local Foods Assessment.....	20
ASSESSMENT FINDINGS.....	25
ASSESSMENT RECOMMENDATIONS.....	85
Sources Cited.....	97
Appendix A. Farmers' Market Merchant Surveys	102
Appendix B. Farmers' Market Customer Surveys.....	131
Appendix C. Resource Directory for Kandiyohi and Surrounding Counties	151
Appendix D. Woodbury County Policies	156
Appendix E. Survey of Attendees for the Ken Meter Presentation	164

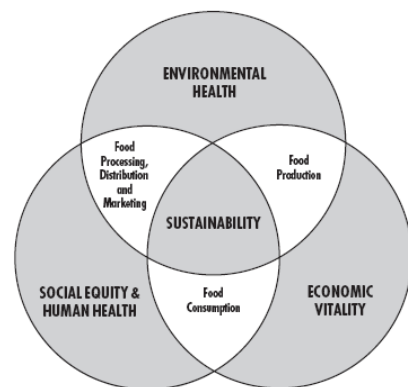
LOCAL FOODS



There was a time when all our food was produced within a short distance of our homes. Today when we shop for groceries we're buying apples from New Zealand, broccoli from China, and beef from Argentina. How would Kandiyohi County benefit by supporting the production and consumption of local foods once again? A "local foods" movement is sweeping the United States to support local family farms and keep a safe and steady supply of locally grown foods in our communities. Several communities and counties across the U.S. are developing policies and strategies to support a locally grown food economy. The efforts of the Kandiyohi County Local Food System Steering Committee represent a part of this growing movement.

What is a Local Food System?

The purpose of the Kandiyohi County Local Food System Assessment is to facilitate building stronger local communities in regard to cultural, social, economic, and environmental development of the food system. A local food system is based on sustainability in food production, food processing, food distribution, and the availability of healthy, nutritious foods for the communities' residents. Agriculture, as a food system, is multifunctional, with five kinds of assets: natural capital (elements and processes of nature), social capital (norms, values, and attitudes shared by cooperating individuals), human capital (knowledge, skills, leadership), physical capital (human-created infrastructure such as markets, transportation systems, technologies), and financial capital (Pretty 2005). A sustainable food system is one that can endure by enhancing environmental diversity while avoiding the unsustainable environmental destruction perpetuated by industrial agriculture. A local food system utilizes local inputs and resources and reduces the food miles from farm to consumer. Increases in food costs associated with transporting food across the country and around the world make the importance of local foods increasingly apparent. In turn, risks to the food system associated with toxic chemical use and potential health hazards from *E. coli*, *Salmonella*, or Bovine Spongiform Encephalopathy (BSE, or mad cow disease) are minimized, creating a healthier food environment for consumers. Local food systems make available healthier alternatives to the fast-food industry that is creating serious issues with obesity and diabetes. Local food systems engender face-to-face connections between farmers and consumers, building on the strong social networks of local communities. In so doing, family farms receive the support they deserve. Local food systems respond to needs of the local community to ensure equitable access to nutritionally-balanced food needs. And local food systems celebrate cultural diversity by meeting the food demands of diverse ethnic populations (Garrett and Feenstra 1999).



(source: Garrett and Feenstra 1999:3)

Community participation is an important ingredient required for successful local food systems. Rather than being organized in a top-down fashion by a handful of leaders, successful local food systems rely on grass-roots participation, from the ground up. Once in place, sustainable local food systems also help to develop local businesses and generate local employment. Successful local food initiatives have also fostered food and agricultural

policies that promote food production, processing, distribution, and consumption. The end result is economic development that keeps food dollars within the region, rather than sending them elsewhere. Indeed, across the nation, a growing movement in support of a diverse variety of successful projects is changing the nature of local food systems.

Kandiyohi County Local Food System Steering Committee

To support and promote the local food system of Kandiyohi County, area residents came together in 2007 to form a steering committee and investigate the challenges and opportunities to meeting that end. After consulting with various community groups, the steering committee determined to initiate an assessment of the local food system which would then serve as a tool to identify gaps and develop strategies to improve the local food system, as a platform for policy change, an organizing tool for organizations, an asset mapping tool, and that would provide a model for other communities to improve their local food systems. The overarching goal is to create an economically viable, environmentally friendly, socially just, safe, and nutritious food system with access for all in Kandiyohi County, Minnesota. The steering committee brings together diverse partners and interests including:

Heartland Community Action Agency
Institute for Agriculture and Trade Policy
J & L Bison Ranch
Kandiyohi County Public Health and STEPS to a Healthier Willmar
Kandiyohi County and Willmar Economic Development Commission
Land Stewardship Project
Mid-Minnesota Regional Development Commission
STEPS to a Healthier Willmar
U of Minnesota Extension – Family Nutrition Program
U of Minnesota West Central Partnership (WCP)
West Central Integration Collaborative
Willmar Area Food Shelf
Willmar Area Public Schools – Farm to School Program

Following a series of focus groups in 2007 to identify assets and opportunities, as well as needs and challenges to the local food system, the Steering Committee identified six priorities based on consultations with these community groups:

1. Prepare for food emergencies from natural, terroristic, or other disasters
2. Provide enhanced local economic opportunities for farmers, processors, distributors, food wholesalers/retailers, and waste and composters to receive a fair living wage from participating in the food system
3. Create a food system that improves local natural resources, such as soil, water and air
4. Provide networking opportunities for residents to develop collaborative solutions to challenges in the local food system
5. Create educational opportunities for residents and local leaders to take action and improve the local food system
6. Provide education and the necessary skills to maximize the available food resources to improve the health of Kandiyohi County residents

The assessment considers the local food system to be a holistic system wherein production, processing, distribution, consumption, access to food, health and nutrition, and the environment interact in multiple, synergistic ways. As such, it fits the IAASTD (International Assessment of Agricultural Science and Technology for Development) model of a *multifunctional* agricultural system with a goal of ending hunger and poverty, analyzing long-term environmental consequences, and connecting in ways that sustain households (Brooke 2008). Findings of IAASTD research suggest that **agroecology** offers one of the best ways to feed the hungry while protecting the planet by reducing our ecological footprint.

Theoretically, can local people play a positive role in developing a sustainable local food system? This is not an easy challenge and relies heavily on the quality of **social capital**. Where social capital is strong, people will have the confidence to invest their energies in collective activities. Pretty asserts that “Relations of trust lubricate cooperation” (2005:174). It is thus incumbent on the steering committee to ensure relations among the broader community of trust, reciprocal exchanges of knowledge and labor, common understandings about how to proceed, and to create networks of connection among people in the community who are interested in local food. Reciprocity in contributing to the common good will increase trust and long-term obligations among people. So how do we create connectedness among community neighbors and between neighborhoods and surrounding communities? Essential is **frequent communication, reciprocal arrangements, and small group size**. People will bond if local groups share similar objectives. Different organizations and groups with divergent views (ethnic organizations, churches, human service agencies, farmers, marketers, extensionists, etc.) can be encouraged to create bridges among themselves. Finally, actors must then engage in linking with external agencies in order to influence policy and draw on their resources (Pretty 2005).

Background

The Food System

If you want to go to Canada, but are driving towards Mexico at 100 mph., slowing down to 30 won't help. You are still going in the wrong direction. You need to turn around and go in the right direction
(William McDonough cited in Bedford 2007).

Farmers made more at the end of the depression than they do today. Their share of retail prices was 41% in 1950 and dropped to 20% in 2004 (Ken Meter, public address, Willmar, MN). How can we understand this paradox? The U.S. food and agricultural system has experienced dramatic transformations since World War II. The food we produce and eat is now largely industrialized, control of production, processing, and distribution is concentrated in the hands of a few corporations, and these have replaced small-scale family farmers who were better stewards of the land. Few people today know where their food comes from or how far it traveled to get to them, and even fewer ask what the costs of this food

system are to farmers, labor, health, community vitality, and the environment (Smith and Marra 1993). At the same time, consumers experience dramatically growing rates of obesity, diabetes, and heart problems as they turn from more nutritious home-cooked meals to fat-

laden fast foods. The energy costs of transporting chemically-saturated foods from around the world and across the country pose serious risks to the environment and the economy. Moreover, the decline of rural communities bears social costs as formerly vibrant rural communities with their rich social networks lose local businesses and turn into ghost towns.

Before the industrialization of agriculture, higher prices brought higher incomes to farmers, but then most people were farmers who produced their own inputs, relied primarily on human labor, and whose knowledge allowed them to cooperate *with* nature. With agricultural industrialization, farmers' incomes came to depend more on the price of inputs (fertilizers, herbicides, pesticides, purchased hybrid seeds), new technologies (machinery to replace labor), and homogenization of the agricultural landscape, all of which allowed them to short-circuit nature (Strange 1999).



Following World War II, scientists developed ways to transform chemicals used in warfare into fertilizers, herbicides, and pesticides to support a new industrialized agriculture. The incorporation of chemical fertilizer into the agricultural system illustrates the interconnections between crops, environment, limited energy sources, and human well being. This is also a story of how post-war surpluses contributed to a growing agricultural crisis. A surplus of ammonium nitrate used for explosives during wartime now made possible the production of chemical fertilizers increasingly used on hybrid corn. Significantly, nitrogen is essential to the formation of amino acids and proteins—the basic building blocks of all life, including human beings. Before industrial agriculture, all nitrogen for plant life was fixed by bacteria in the soil. Synthesizing the process with chemical fertilizers allowed for dramatic increases in production—and for feeding growing populations. But fertilizer production now required immense amounts of fossil fuel. As Pollan explains, “What had been a local, sun-driven cycle of fertility in which the legumes fed the corn which fed the livestock which in turn (with their manure) fed the corn, was now broken” (2006:44). Today, Pollan reports, each bushel of industrial corn needs one-fourth to one-third gallon of oil. Each acre consumes 50 gallons of oil! Today we pay the price in higher costs to produce our food and transportation costs to bring food commodities from distant locations. The average distance food travels from farm to dinner table is 1500 miles. Beneficiaries of this system (agri-corporations, fertilizer companies) claim the benefits of “efficiency,” when in reality, the cost to produce one calorie of food requires more than one calorie of fossil fuel (Pollan 2006). Shiva (1993) reports that sustainably raised crops require one-half calorie of energy to produce one calorie of food, whereas industrial crops require 10 calories of energy to produce one calorie of food. Of course we have not yet taken into account the contribution of fossil fuels to acid rain, global warming, and contamination of water tables. Indeed, 60% of the cost of food production is in energy and the U.S. spends \$139 billion per year for energy to bring food to our tables (Meter 2005c).

From 1940-1984, the amount farmers had to spend for agricultural production increased fifteen-fold. While the volume of production tripled, prices fell 40-60%. Net income (gross income minus expenses) fell from 38% in 1940 to 10% in 1980 (Strange 1999). It must be recognized that the farmers' former share of profits is now gleaned by the corporations that produce the inputs. To regain a larger share of income, farmers were forced to increase production even more, and this set the stage for increasing scale and concentration of agriculture in fewer hands. If we examine some of the facts that accrue within this system, it

cost U.S. farmers \$14 billion over the amount they received to produce crops and livestock in 2001. While farmers doubled their productivity, they earned less in 2002 than they did in 1969 (Meter 2005b). These trends began with green revolution technology and an era when Secretary of Agriculture Earl Butz mandated that farmers plant “fence-row-to-fence-row” and to “get big or get out.” The small-scale family farm shifted toward obscurity. The farm debt taken on by these farmers lead to their own demise with the farm crisis of the 1980s.

Another crisis was brewing in the global South. PL 480, or the 1954 “Food for Peace” program, used food as a political tool as it helped to dispose of U.S. agricultural surpluses. When world competition sharpened during the Cold War, agricultural commodities came to play an important role in asserting U.S. prominence in world trade. The U.S. government subsidized over-production of export commodities that undercut agricultural production in the global South. As technology replaced agricultural labor, that labor force declined 33% between 1950 and 1990. Araghi (2001) further clarifies that cheap commodity exports to the global South and outsourced production of export commodities by transnational corporations in the global South undermined farmers' ability to survive. In the post-Cold War era the U.S., among many other countries, embraced Milton Freidman’s economic paradigm, ushering in a neoliberal paradigm that transformed how food was produced. Subsidies to corporate commodity farmers, referred to as “corporate welfare” by Poh and Rosset (1999:201), thus benefit from this relationship as family farms in the U.S. and the global South face extinction. Ironically, as farmers become displaced from agriculture in the global South, they contribute to the dramatically increasing migrant flow of labor to the U.S. where many work as underpaid labor in agribusiness production and processing (Araghi 2001).

“...small farmers are pushed to extinction as monocultures replace biodiverse crops, as farming is transformed from production of nourishing and diverse foods into the creation of markets for genetically engineered seeds, herbicides and pesticides”
(Shiva 2001:7).

By the 1980s, trade liberalization and deregulation were providing substantial benefits to transnational corporations that had taken over most of U.S. food production. Food production is now concentrated in the hands of a few transnational corporations. Ten corporations control 32% of the seed market and 100% of the genetically modified seed market. A small handful of companies control the agricultural chemical markets. Cargill, the largest TNC, with headquarters located in Minneapolis, wielded significant influence in shaping the WTO’s international trade agreements. As companies like

Cargill and Monsanto developed genetically modified seeds, they benefited from sales of the larger proportion of herbicides and pesticides that seeds were programmed to tolerate (e.g., Monsanto’s Roundup Ready soybeans). Shiva (2001) refers to the corporate theft of nature when companies patent these seeds, which besides the ecological destruction, makes farmers whose crops have been accidentally wind-pollinated subject to litigation by the corporation. The biotechnology revolution of the 1990s, with crops genetically engineered to resist ever-larger doses of herbicides, to withstand mechanical harvesting, or to extend shelf-life, along with animal cloning and computerized farming, represents one of the most contested issues between industrial farming and environmentalists. The transfer of genes from one species to another poses yet unknown health risks to human populations. People seemed to forget that food and agricultural systems came about through a long history of biocultural adaptations to diverse, *local* environments. Over much of today’s agricultural landscape, traditional crops that were fresh, low in price, had little environmental impact, and

were higher in nutrition are largely replaced by the products of biotechnology which arrive at our dinner tables stale, having traveled long distances, are higher cost, carry heavy environmental impacts, and are lower in nutrition (Shiva 2001). Today, however, these same agribusiness companies are redirecting food production to biofuels such as ethanol. Not only is the search for alternative fuels decreasing food availability, but the price of grains such as corn increased dramatically as a result (Marchione 2008). At the same time, rising costs for seed and fertilizer presented additional challenges to farmers (Brooke 2008).

It is important to recognize the impact of these transformations. Local farmers spend their agricultural dollars in the local community, thus maintaining vibrant local economies. After decades of what can be called a “cheap food regime,” the prices of food and fuel began to increase exponentially in 2006, soaring 43% in a single year (Brooke 2008; Marchione 2008). Transnational corporations take their profits out of local communities, leaving them economically destitute. **West**



Central Minnesota loses \$1,000,000,000 per year through the purchase of non-local foods (Meter 2005a). When consumers perceive the “lower food prices” of global products on their supermarket shelves, the real costs of food production become mere fetishes for the price tag on display. The price tag obscures the fact that we pay for our food thrice-fold: at the store, through taxes that support farmer subsidies, and to clean up the environment and treat our modern diet’s health risks (Pretty 2005). *Externalities* (like “collateral damage” in warfare) refer to the hidden costs of food production.¹ When a U.S. citizen saves five cents on each hamburger imported from Central America, each hamburger required six square yards of rainforest to be cleared to feed the cattle (Araghi 2001). In the U.S. corn grown for animal feed takes up 16 million acres of farmland. The fossil fuels to produce that corn are equivalent to 14 billion pounds of carbon, or the amount of greenhouse gases put into the atmospheric by four million cars (Pollan 2006). Outsourcing production means contracting underpaid labor in the global South or immigrant populations in the U.S. who are subject to toxic chemical exposure and labor exploitation. Externalities refer to the hidden costs of transporting food from 1500 to 3000 miles away that involves both wastage of scarce petroleum resources and contributes to global warming. Externalities refer to the costs of infrastructure to enable the harvesting, warehousing, packaging, and marketing costs of foods that used to be produced locally without these costs. Ninety percent of fossil fuel energy in the world goes to packaging, transport, and marketing of foods. Externalities contribute to turning lands used for food crops by farmers in the global South into export commodity production for Northern consumers. Indeed, the biotechnological age ushered in patent rights on seeds that shut out local farmers, preempted biodiversity, released mad cow and *E. coli* scares that endanger the lives of citizens, while the responsible companies continue to reap huge government subsidies and evade oversight. Inequalities pervade this food system and there is clear reason—culturally, socially, economically, environmentally,

¹ According to Tegtmeier and Duffy’s (2005) research, per annum external costs to agricultural production in the U.S. in 2002 included the following damages:

Water resources (microbial, nitrate, pesticide treatment)	\$ 419.5	million
Soil resources (which are variable)	\$2,242.7-13,394.7	million
Air (greenhouse gases)	\$ 450.5	million
Wildlife and biodiversity (loss due to pesticides)	\$1,144.9-1,741.1	million
Human health (due to pathogens)	\$ 416.4- 441.5	million
Human health (due to pesticides)	\$1,009.0	million
Total	\$5,682.9-16,889.2	million

and politically to call for a return to a healthy, locally-produced food system (Araghi 2001). Wendell Berry analyzes the ecological crisis as a “crisis of character.” He admonishes that “Once our personal connection to what is wrong becomes clear, then we have to choose; we can go on as before...or we can begin the effort to change the way we think and live” (Berry 1977:19). We have a choice and that choice is premised on Berry’s distinction between two distinct mentalities:

The Exploiter	The Nurturer
Specialization (commodity production)	Diversification (integrated system)
The standard is efficiency	The standard is stewardship
The goal is profit	The goal is health of land, family, community
Asks how much the land can produce	Asks what is the carrying capacity of land
Emphasis on quantification	Emphasis on quality, character
Abuse of nature, food as weapon	Generosity, food as neighborly care, festivity

Kandiyohi County



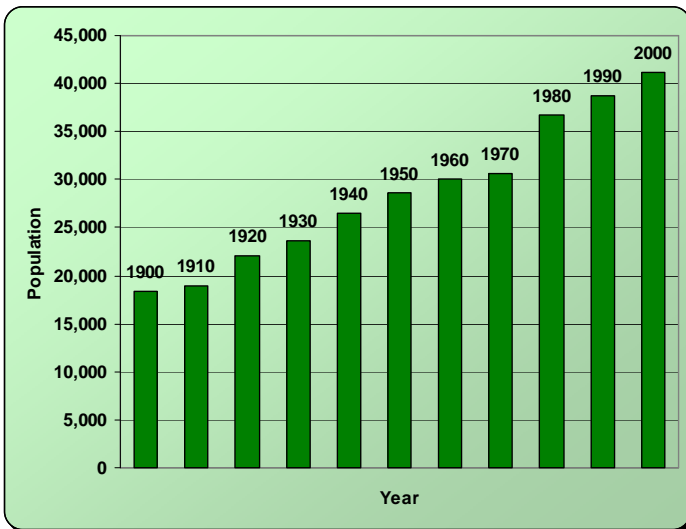
Given the above food scenario, profound transformations are also taking place in Kandiyohi County. Kandiyohi County is one of 12 counties (Big Stone, Chippewa, Douglas, Grant, Kandiyohi, Lac Qui Parle, Pope, Renville, Stevens, Swift, Traverse, and Yellow Medicine) in the West Central Minnesota region. The region has 21% of Minnesota’s farms over 1,000 acres. There are 10,011 farm families in the region; between 1993-2003, they sold \$1.44 billion in farm commodities each year. The cost to produce these commodities was \$1.59 billion, creating a net loss each year of \$153 million. These farmers receive \$167 million annually in federal subsidies, yet cannot stay afloat. Farmers of the West Central region spend \$600 million per year on inputs (fertilizers, herbicides, agricultural chemicals, etc.) produced elsewhere, draining significant resources from the region. Consumers spend \$354 million on food, \$250 of which is spent on non-local foods (Meter 2005a). The region has 12% of the state’s farms and produces 23% of its corn, 22% of its soybeans, 29% of sugar beets, 14% of the state’s livestock, has 20% of the state’s vegetable land, and 7% of orchards in the state (Meter 2005b). The alternative to this irrational system of industrial farming can be found in the 271 farms in the West Central region that sell directly to consumers. Making up 12% of the state’s farms, they sell \$871,000 worth of local foods. Organic production makes up 7% of state farms, valued at \$562,000 (Meter 2005a). Indeed, as Meter clarified at a public presentation in July, 2008, if only 15% of food was purchased directly from farmers, this would create \$28 million in new income for the region.

According to the Kandiyohi County Agriculture Business Retention and Expansion Program (BRE), the future of Kandiyohi County is critically dependent on its agriculture (Molenaar 2005). The BRE goals, however, include not only meeting the needs of farmers, but also to educate the public about the role of agriculture and to create a support base and a network among communities, agriculture, business, and government. This vision points out the significance of collaboration among a broad range of community members and organizations. Developers must recognize that “Farming and agriculture-related industries (agricultural processing, retail, transportation, regulation, education, and service to name a few) are

dependent upon each other (Molenaar 2005:65). The report further reveals that about two-thirds of survey participants purchased their goods and services locally and the remainder made purchases in a neighboring county. On average, one area farm makes an average contribution of \$400,000 to the local economy as farm dollars circulate through several layers of the local economy. Thus, by promoting agriculture we simultaneously promote other businesses directly and indirectly related to the agricultural sector.

Population dynamics constitute an important consideration when planning local foods development. The population of Kandiyohi County grew dramatically in the past century, doubling in size from 1900 to 1980.

Population of Kandiyohi County

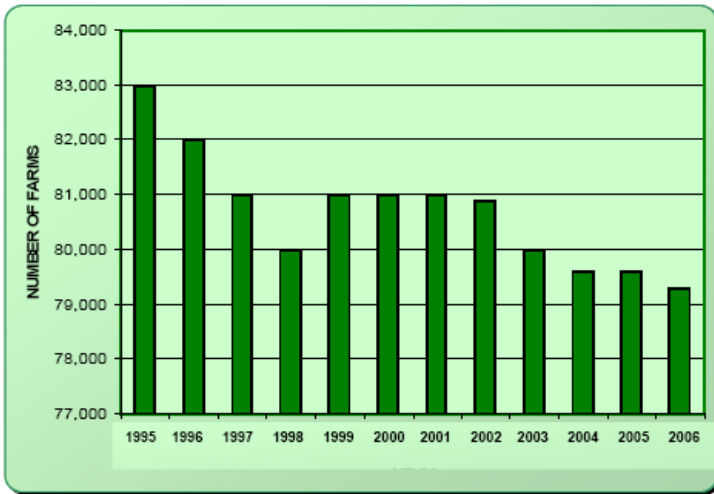


(source: U.S. Census Bureau 2000)

The current population of Kandiyohi County is 41,203. As population grows, we find family farms in decline, accompanied by the growth of large-scale farming operations. In the early years of the 20th century, local farmers were largely self-sufficient and independent, growing alfalfa, clover, corn, oats, and wheat, with seed selected from their own farms, and which was used to feed their livestock (Molenaar 2005). The University of Minnesota introduced hybrid seeds to the region in 1936, and by 1940, commercial fertilizers were shipped into the area by rail. From 1940 to 1968, Kandiyohi county followed the national trend to overproduction: Alfalfa increased from 7,000 to 35,000 acres, and soybean production increased from 3,487 in 1941 to 93,100 acres in 1968 (Molenaar 2005).

At the state level, Minnesota is losing farms, from 83,000 in 1995 to 79,300 in 2006, as indicated by the 2007 Minnesota Agricultural Statistics report:

Number of Farms in Minnesota, 1995-2006



(source: USDA 2007)

It is worth quoting a section of the BRE report:

Data since 1987 supports [sic] the premise that the number of farms in the middle categories of size and income are diminishing. The term “tweener” has been coined to describe those between the smallest farms and the largest operations. The numbers of farm operations in Kandiyohi County from 1987 to 2002 increased slightly. Good news for the county – right? The largest increase (400 farms) occurred in the category of sales of \$2,500 or less. An increase also occurred in the largest farm operations. The loss of the mid-sized farm operation is a trend that is well under way and has significant implications for our rural communities. It is the opinion of this committee, that *without a significant change in policy or economics, this trend will continue well into the future* (Molenaar 2005:47, emphasis added).

The emphasis on commodities at the expense of local food production is clear in the data presented in the 2007 Minnesota Agricultural Statistics report:

Minnesota Production and Agricultural Value

Crop Year 2006	1,000 Acres	1,000 Units	Value in \$1000s
Corn for Grain	6,850	1,102, 850 bushels	3,473,978
Corn for Silage	400	6,000 bushels	NA
Soybeans	7,250	319,000 bushels	1,898,050
Oats	200	11,200 bushels	20,720
Barley	90	5,400 bushels	14,040
Wheat	1,695	80,340 bushels	368,867
Sugarbeets	477	11,877 tons	411,019*
Sunflowers	85	149,250 pounds	23,475
Canola	27	35,910 pounds	3,519
Hay	2,070	5,679 tons	407,516
Dry Beans	135,000	2,228 Cwt.	51,021
Sweet Corn**	131,600	965,550 tons	64,904
Green peas	80,200	130,190 tons	39,924
Onions	210***	65 Cwt.***	509***
Carrots**	1,160	34,950 tons	1,940
Wild rice	16,600	7.1 million lbs.	NA
Apples	NA	17 million lbs.	9,228
Potatoes	48,000	20,400 Cwt.	128,520
Organic production	116,813 acres****	NA	NA

(source: *Minnesota Agricultural Statistics 2007*)

* 2005 data

** For processing

*** 2003 data

**** Certified (433 operations)

The BRE report shows a total of 548,727,000 acres in production. Of these, only .02% is in certified organic production. While there have been gains in organic production in recent years, the rate of adoption of organic production remains low and below the .5% of organic cropland at the national level. Impediments include risk in transitioning to a different way of farming, especially for older farmers whose equipment is suited for standard agriculture, lack of knowledge about organic production methods, weak marketing infrastructure, difficulty in capturing markets, and additional costs for more intensive labor requirements. Education is necessary to train farmers in production methods, strategies to capture niche markets, and information on lowered costs of production by using on-farm inputs that leave fewer environmental impacts. The public needs to be better informed as well so that organic production emerges out of its current "niche market" to become more generalized.

To examine agriculture in Kandiyohi County, the 2002 Census of Agriculture (USDA 2002) indicates that the county had 1,286 farms with 407,905 acres of farm land. The mean farm size was 317 acres. In 2002, Kandiyohi County farms averaged \$185,273 in gross income, with average production expenses of \$153,512, leaving an average net income of \$31,761. This is augmented by government payments, on average, of \$7,935 per farm. Moreover, in 1987, 901 individuals considered farming their primary occupation, whereas in 2002, only 752 did so. Indicative of the changing nature of the farm economy, since 1987 the number of farms selling under \$2,500 in agricultural produce increased from 142 to 550 in 2002; alternatively, the number of farms selling \$100,000 or more increased from 268 to 325. This

same trend occurred at the state level between 2001 and 2006. Even so, it is important to acknowledge Molenaar's (2005) assessment of changing farm size. The USDA considers farms with \$350,000 in sales as commercial; given that fact, only 200 farms (under 15%) in the county fall into this category. Farms with sales under \$10,000 per year make up 36% of all farms. Farm production market value was \$230,896,000 in 2002; Crop sales made up \$83,050,000 of the total value and livestock sales accounted for \$147,845,000 of the total value. Although most agricultural data are available at the state, rather than county level, some facts that may illustrate the nature of agriculture in Kandiyohi County include:

Selected Kandiyohi County Agricultural Data	
Average size of farms	317 acres
Average value of agricultural products sold per farm	\$179,546
Average value of crops sold per acre for harvested cropland	\$269.41
Corn for grain	134,171 harvested acres
All wheat for grain	4,473 harvested acres
Soybeans for beans	119,066 harvested acres
Vegetables	4,525 harvested acres
Land in orchards	40 acres
The value of livestock, poultry, and their products as a percentage of the total market value of agricultural products sold	64.03%
Average number of cattle and calves per 100 acres of all land in farms	6.32
Milk cows as a percentage of all cattle and calves	25.78%
Average total farm production expenses per farm	\$153,512
Harvested cropland as a percentage of land in farms	75.57%
Average market value of all machinery and equipment per farm	\$93,135
The percentage of farms operated by a family or individual	88.88%
Average age of principal farm operators	55 years

(source: Kandiyohi County Detailed Profile 2008)

For selected crops, the county can be compared with state-level production:

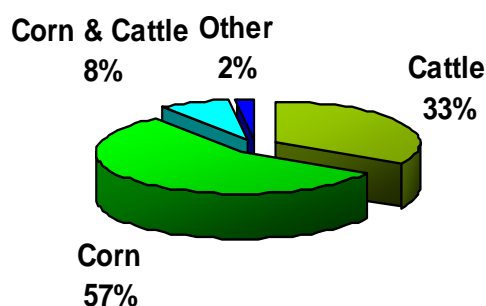
Kandiyohi County Production

Crop Year 2006	Acres	Units	% Minnesota Production
Corn for Grain	140,000	22,400,000 bushels	2.03%
Corn for Silage	4,400	70,400 tons	1.17%
Soybeans	112,100	4,932,400 bushels	1.55%
Oats	3,300	178,200 bushels	1.59%
Sugarbeets	16,300	416,600 tons	3.51%
Hay	19,000	63,000 tons	1.11%
Dry Beans	3,400	74,500 Cwt.	3.34%
Sweet Corn**	4,700	36,990 tons	.004%
Green peas	3,300	5,600 tons	.004%

(source: USDA 2007)

According to the 2007 Minnesota Agricultural Statistics report (USDA 2007), Kandiyohi County ranks 2nd in the state in cash receipts for livestock production, 6th in dry edible beans, and 9th in canola production. The county ranks 4th in total cash farm receipts and 9th in government payments. Livestock makes an important contribution to the state with a total value of \$3.1 billion in 2006; broken down, cattle comprised \$2.3 billion of this amount, hogs \$748 million, sheep \$20.9 million, and poultry \$22.8 million (USDA 2007). For the 52,300 farm operations in Minnesota with livestock in 2006, 47.8% had cattle (valued at \$2,420,500,000, 10.3% had milk cows, 27.9% had beef cows, 9.2% had hogs (valued at \$792,000,000), and 4.8% had sheep (valued at \$22,785,000). While 13,000 farms had fewer than 50 head of cattle, only 150 had over 1,000 head. According to the Survey of Kandiyohi County Agriculture Producers, Business Retention and Expansion Program, crops provide 57% and livestock 33% of farm income in Kandiyohi County.

What is the source of your farm income?



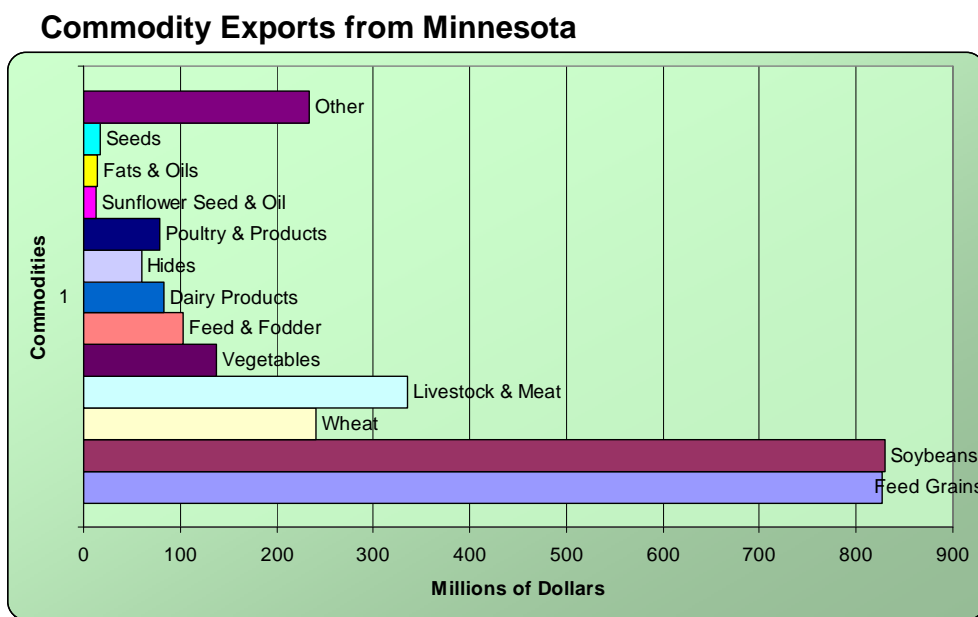
(source: Molenaar 2005:14)

A longitudinal examination, however, suggests concern. From 1987 to 2002, farms with beef cattle in the county declined from 498 to 318 and concomitantly, the number of cattle declined from 31,768 to 25,782. In this same time frame, dairy farms decreased from 275 to 104, with a decrease in dairy cows from 10,190 to 6,647. Hog production followed a similar trend. The original 505 hog farms were reduced to 75 by 2002, but confinement operations in part contributed to an increase in hog inventories from 78,076 to 91,670. In 1987, 40 farms were producing 5,955 sheep and by 2002, there were 43 sheep farms with 4,372 sheep (Molenaar 2005). Within the county, there were 28,500 cattle in 2007, 2,900 beef cows, 7,300 milk cows on 93 dairy farms, 2,500 sheep, and 82,000 hogs (USDA 2007). Losses in dairy production have cost the state hundreds of millions of dollars. Each lost dairy cow represents \$5,000 in lost economic activity. Meat processors in the state stand to lose \$2.85 billion per year in pork, beef, and dairy value-added processing (Minnesota Livestock matters 2005). These trends are not mirrored in the poultry industry. A total of 14,690 farms had poultry, valued at \$22,767,000. Turkey confinement operations and processing has literally exploded in Minnesota in recent years. There were 45 million turkeys raised in 2006, with annual production valued at \$568,900,000. Chicken production, at 14.2 million in 2006 and broilers valued at \$87,200,000, combined with 2.94 billion in egg production valued at \$107,300,000 (USDA 2007). Molenaar (2005) reports a 35% increase in turkey production and processing between 1994 and 2002; at that time, the county ranked 4th in the nation, with 2,178,806 turkeys raised.

Jenny-O, the world's second largest turkey producer (after Cargill) had its beginnings in Willmar. In 1949, Earl B. Olson founded the factory in Willmar. In 1986, the company became part of Hormel, a multinational corporation. The company processes over one billion pounds of turkey per year and distributes it across the U.S. and to 26 foreign countries.

Turkey raising and processing brought significant changes to the region as confinement operations (CAFOs) opened to supply the processing plant. Many of these rely on contract farming, wherein farmers must comply with company requirements and bear the risks associated with production. A typical confinement operation houses 35,000 turkeys and generates waste equivalent to a city of 6,000 people. High levels of fecal coliform bacteria enter streams and rivers. However, Jenny-O also contributes to the local economy and employs much of the immigrant population, thus playing a major role in emerging multi-ethnic communities in the region. A new trend in the county is an increase to 19 Hispanic/Latino farm operators. (Land Stewardship Project 2002; Maki n.d.; Jenny-O Store n.d.).

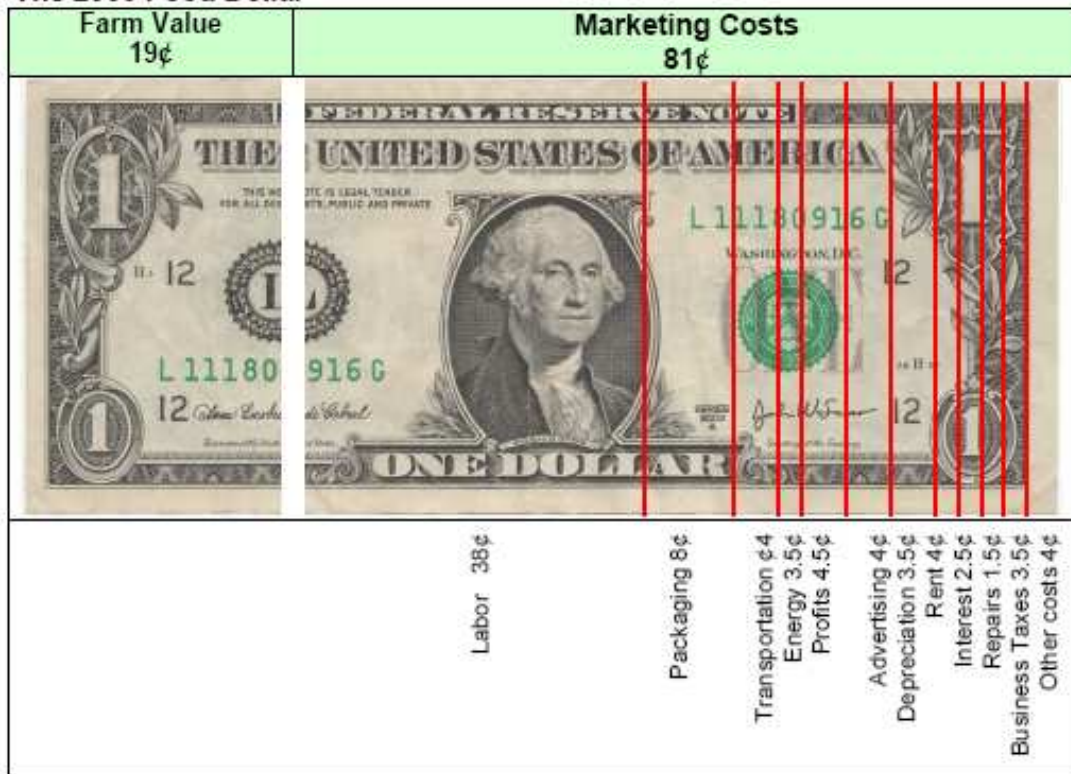
Against this backdrop, Minnesota ranked 7th in farm exports, valued at \$2.98 billion in 2006, or 4.3% of the total national food exports. The following table illustrates the commodities that represent these exports:



(source: USDA 2007)

At the turn of the 21st century, 80% of the \$618 billion spent on food produced in the U.S. was absorbed by transporting, processing, and distributing food. Only 20% served as a return to farmers (USDA 2000). The figure below illustrates why local farmers, local markets, and local businesses demand support to keep food dollars at home.

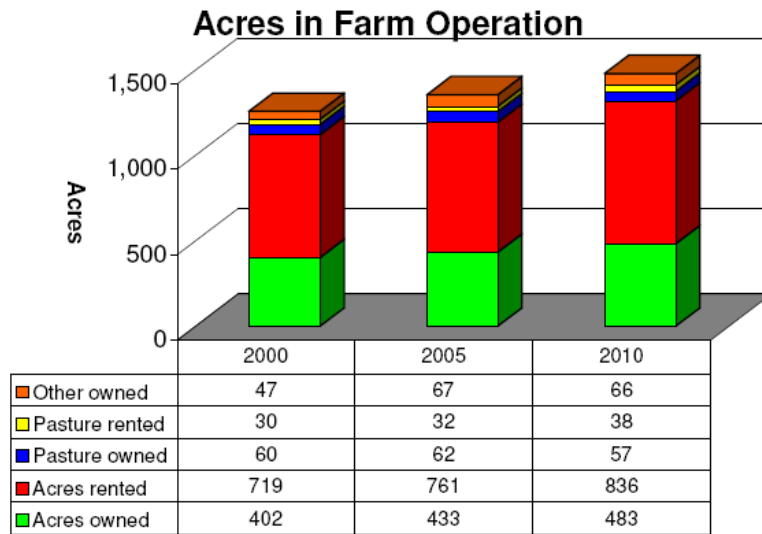
The 2000 Food Dollar



(source: adapted from USDA 2000; based on food produced in the U.S.)

Given this context, the Kanidyohi County Local Food System project proposes to enhance production and consumption of local foods, thus reducing the food miles of produce consumed in the region.

Land values in Minnesota are increasing, from \$1,600 per acre in 2003 to \$2,400 in 2006. Land sales, on the contrary, are declining, from 256,276 acres in 2002 to 186,895 in 2006. In West Central Minnesota, 32,341 acres were sold in 2006, second in scale only to the Northwest region with 46,543 acres sold. Land rent increased slightly from \$82 per acre in 2003 to \$88 in 2006 (USDA 2007). As is the case nationwide, much agricultural land is not owned by the farmer. Molenaar (2005) also indicates that the average age among land renters is 80. Many of these are retired farmers who rent out land for commodity production.

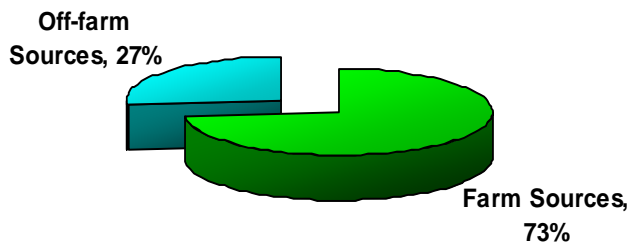


(source: Molenaar 2005:18)

On a more foreboding note, the average age of 54.9 years for farmers, is indicative of an aging farming population. Much of Kandiyohi County's farm land will be transferred within the next 20 years. Some of these farms may remain within the family, some will be rented, but many will be sold to large-scale farmers, or for urban development. Efforts should be made to ensure that as much of this land as possible remains within the local farming system.

County farmers, however, are increasingly dependent on non-farm wages. From the Survey of Kandiyohi County Agriculture Producers, Business Retention and Expansion Program, over a quarter of income is earned off-farm:

Where does your income come from?



(source: Molenaar 2005:14)

Even with the necessity of off-farm employment, it is important to recognize that farming provides employment to farmers, farm laborers, as well as businesses and industries dependent on the agricultural sector. The BRE report reveals agriculture's important role in generating employment. Animal production provided 752 jobs, with an annual payroll of \$19.4 million in 2004. Poultry and egg production provided 686 jobs. In the middle of the chain between production and consumption, food manufacturing supplied 1,958 jobs, with a \$58.5 million annual payroll. Wholesalers of farm products provided 69 jobs, with a payroll of \$450,000. Some 4,734 workers in the county are employed by agriculturally-related establishments (Molenaar 2005). For males in Willmar, only 5% are employed in agriculture, forestry, fishing and hunting, yet 12% are employed in food industries and another 3% work as cooks or in food preparation. For women, 8% are employed in food industries, 7% in food

services, and 4% work in stores that sell food and beverages (Willmar, MN Detailed Profile 2008).

In summary, dramatic transformations have changed the nature of agriculture in the nation, state, and Kandiyohi County. The post-war era created the green revolution, overproduction, heavy reliance on food exports, fostered corporate control of industrial agriculture, and new concerns over biotechnology. As noted above, **the West Central Region spends \$250 million of its \$354 million total expenditures on food produced outside the region. If 15% of that food were purchased from local farmers, it would create \$28 million in new income for the region and reduce the ecological footprint of fuel costs.** The Kandiyohi County Local Food System Steering Committee hopes to ameliorate these unsustainable trends by joining a growing movement in support of sustainable agriculture. There are obstacles in the way that must be countered: rising land and land rental costs, entrenched understandings regarding conventional agriculture, and risks associated with changing the current mode of operation. But current concerns about fossil fuel resources and rising food costs, along with acknowledgement of the externalities related to food price, offer opportunities for bold, new incentives to create more sustainable and just communities.

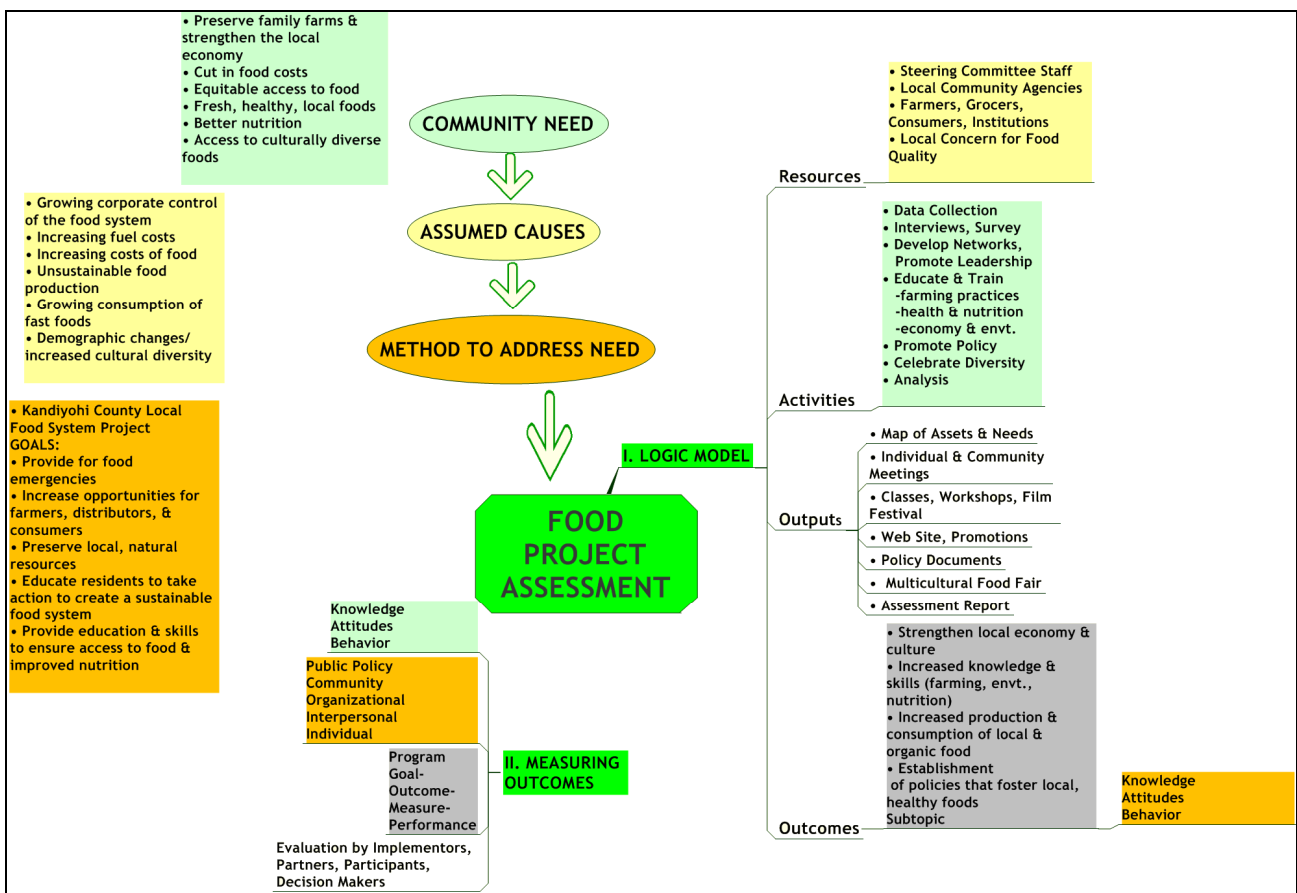
ASSESSMENT GOALS

Specific Objectives

A complex series of strategies was developed to carry out the assessment and meet assessment goals (see Figure 1).

Procedures

Figure 1. Food Project Assessment Procedures



- The assessment is based foremost on community needs to preserve family farms and strengthen the local economy, cut food costs and ensure equitable access to food, make available fresh, healthy, local foods, and achieve improved nutrition, as well as access to culturally diverse foods.

- The rationale for the assessment is premised upon assumed causes, including the growing corporate control of the foods system that takes food dollars outside of the community, increasing fuel costs to deliver non-local foods, the unsustainability of the dominant industrial food system, alarm over the growing consumption of less healthy fast foods, and demographic changes in the Kandiyohi region, with in-migration contributing to increasing cultural diversity.
- Methods to address these needs form a critical part of this assessment. Based on the steering committee's goals, these are to provide for food emergencies, increase opportunities for farmers, distributors, and consumers, to preserve local and natural resources, to educate residents to take action in creating a sustainable local food system, and to provide the education and skills necessary to ensure access to food and improved nutrition.

We may break down these needs, causes, and methods for illustrative purposes:

Community Need	Assumed Causes	Method to Address Need
<ul style="list-style-type: none"> • Preserve family farms & strengthen the local economy • Cut in food costs • Equitable access to food • Fresh, healthy, local foods • Better nutrition • Access to culturally diverse foods <p>(modified from National Research Center 2006)</p>	<ul style="list-style-type: none"> • Growing corporate control of the food system • Increasing fuel costs • Increasing costs of food • Unsustainable food production • Growing consumption of fast foods • Demographic changes/ increased cultural diversity 	<ul style="list-style-type: none"> • Kandiyohi County Local Food System Project <p>GOALS:</p> <ul style="list-style-type: none"> • Provide for food emergencies • Increase opportunities for farmers, distributors, & consumers • Preserve local, natural resources • Educate residents to take action to create a sustainable food system • Provide education & skills to ensure access to food & improved nutrition

It should be understood that the assessment is a *process*, continually taking shape and ongoing. The following table illustrates the logic model developed, based on the structure of community needs, assumed causes, and methods to address the needs of the local food system (see National Research Center 2006 from which the logic model is derived).

Logic Model of the Kandiyohi County Local Foods Assessment

Resources	Activities	Outputs	Outcomes
Steering Committee Staff Local Community Agencies Farmers, Grocers, Consumers, Institutions Local Concern for Food Quality	Data Collection, Interviews, Surveys, Develop Networks, Promote Leadership Educate & Train -farming practices -economic advantages -health & nutrition -economy & environment Promote Policy Celebrate Diversity Analysis	Map of Assets & Needs Individual & Community Meetings Classes, Workshops, Film Festival Web Site, Promotions Policy Documents Multicultural Food Fair Assessment Report	Strengthen local economy & culture Increased knowledge & skills (farming, environment, nutrition) Increased production & consumption of local & organic food Establishment of policies that foster local, healthy foods

Resources. The assessment process depends on a number of local resources: people serving on the steering committee represent a wide array of skills, knowledge, and social and economic institutions. A number of individuals at various community agencies provided information and data, including the Center for Small Towns at UMM, the Economic Development Association, Latino Service Providers, the Mid-Minnesota Development Commission, the Institute for Agriculture and Trade Policy, Kandiyohi Public Health, Land Stewardship Project, Heartland Community Agency, Raíces Colectivo, STEPS to a Healthier Willmar, United Way, University of Minnesota Agriculture Extension, USDA, the West Central Integration Collaborative, the West Central Partnership, the Willmar Area Food Shelf, Willmar Area Multicultural Market (WAMM), and Willmar School District Food and Nutrition Services. Many of the efforts made and challenges confronted became clear through interviews with individuals at these agencies.

Visits to farms and interviews with a number of farmers afforded knowledge and insights regarding their needs. These included operators of Earthrise Farm (Madison), Easy Bean Farm (Milan), Garden Goddess Greenhouse (Milan), J&L Bison Ranch (Willmar), Johnson goat farm (Grove City), Life Design Organics (Hancock), Soto goat farm (Milan), Moonstone Farm (Montevideo), Prairie Horizons (Starbuck), and Rainbow Gardens (Watson). In addition, proprietors of Bihi African Foods (Willmar), Carlson Meat Processing (Grove City), Kandi Cupboard, Taqueria El Guerredito (Willmar), and Wick’s Meat Shoppe in Kandiyohi, provided information about their challenges and opportunities.

Surveys of both the Becker Market and the Saturday Farmers’ Market provided data on both consumers’ shopping practices and preferences and merchants’ experiences with selling local foods. These are discussed elsewhere in this report. Clearly, the individuals, agencies, farmers, processors, grocers, and consumers demonstrate significant concern within the

region for quality of the local food system and this profound concern demands further promotion and support.

Activities: Activities involved in the assessment, then, include data collection at various agencies, on the internet, printed literature, and through interviews and surveys. A major gap in the assessment process, given insufficient time, was to develop networks and promote leadership to facilitate the assessment process. This issue is further explored below. Education and training on sustainable farming skills, the economic advantages of supporting the local food system, on health and nutrition, and the environmental aspects of sustainable local food systems will be included in the recommendations made by this assessment report. Efforts are currently underway and need further encouragement to promote and celebrate diversity through film and food events and to promote ethnic food products in the food system that are desired by Kandiyohi County's increasingly diverse population. Analysis forms an important part of the assessment process in identifying the gaps, what the needs are, and to make recommendations on further developing the local food system. The steering committee came to the conclusion that the assessment required completion before pursuing policies to promote local food production, distribution, and consumption. Below, the assessment report offers advice to implement policies that promote the local food system.

Outputs. This assessment report offers a preliminary mapping of the assets and needs for Kandiyohi County. A number of individual meetings with producers, processors, and retailers became a first step in this process, but much more is needed. Community meetings are only in the discussion stages, as are classes, workshops and so forth. As evidenced from feedback following the July, 2008 presentation by Ken Meter of the Crossroads Resource Center (see Appendix E), there is strong interest in more community events and it will be important at the next stage of developing the local food system to follow through on this interest. Film events that are both educational and entertaining are being planned to enhance interest in local and culturally diverse foods. Support of a multicultural food fair would be another way to accomplish this aim. Much work is required to promote the local food system and development of a Kandiyohi-specific web site may be desirable. As mentioned above, investigation into policies that may promote local foods is not yet in the planning stages. Grants to seed financial support for new projects will be essential. This assessment report accomplished some of these, but the outputs for the assessment will require much continued work on the part of the steering committee, community members, and whatever organizational structure that evolves out of it.

Outcomes. While it is not the role of the assessment to produce outcomes, the remainder of this report will assess what the needs are, and make recommendations for addressing those needs. The end goals are several:

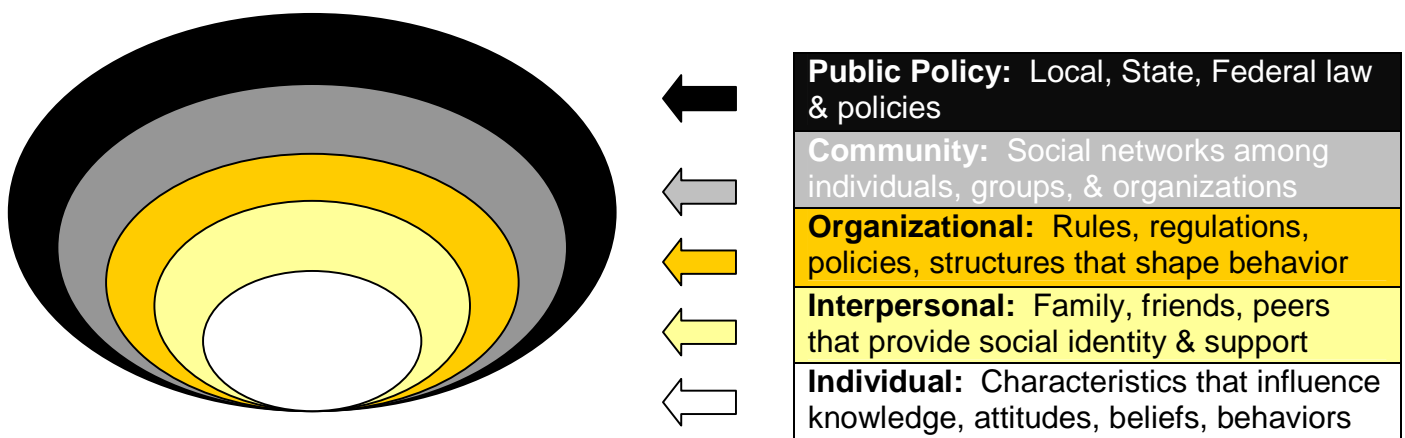
- Strengthened local economy and culture
- Increased knowledge and skills (farming, environment, nutrition)
- Increased production and consumption of local (and organic) food
- Establishment of policies that foster local, healthy foods

Outcomes should also include knowledge, attitudes, and behavioral change. Further follow-up on accomplishments of these efforts will require means to measure such outcomes.

Knowledge	Attitudes	Behavior
Understand health risks & healthy eating; gain skills for sustainable agriculture	More willing to purchase/produce /sell local food; willingness to transform production	Change in growing, shopping, eating behavior

Protocols should be developed to measure whether consumers understand the health risks of industrialized food and better appreciate the benefits of healthy eating. In other words, did knowledge about the food system improve? New and current farmers should be trained to understand and utilize sustainable production methods. Attitudes may be measured by whether people are more willing to produce, process, sell, and consume local food. New and current farmers might indicate interest in the Land Stewardship Project's Farm Beginnings program. Behavioral changes should be tracked through farmer, distributor, and consumer surveys, complimented with information on eating/purchasing habits from local grocers, markets, and restaurants.

Measuring Outcomes. A useful tool for measuring outcomes in the future, and provided here as a model, was derived from the National Research Center (2006) handbook.



The outcomes should take into account several levels of analysis. What policies are in place at the local, state, and federal levels that inhibit production, valued-added processing, distribution, sale, and consumption of locally desirable foods? What policies are feasibly implemented to correct these limitations?

Have social networks been developed that are inclusive of individuals, groups, and organizations that are interested and can contribute as active participants in the local food system? If not, what needs to be done? Further discussion of this will follow. How do present organizational structures and rules shape, discourage, or facilitate production, distribution, and equitable access to local foods?

Have efforts been made to engender a sense of social identity and a support system that encourages all community residents to become leaders and active participants in fostering local foods?

Finally, at the individual level, have strategies been effectively developed to enhance attainment of the outcomes delineated above? All of the above factors should be viewed as interactive and mutually reinforcing.

When recommendations of this assessment—as well as others developed as the local foods initiative proceeds—become implemented, effort should be directed toward evaluation and re-assessment. Assessment of outcomes is critical to continued success. While very preliminary, an example of how this might be done, again based on the National Research Center’s (2006) recommendation, can serve as a map for future action:

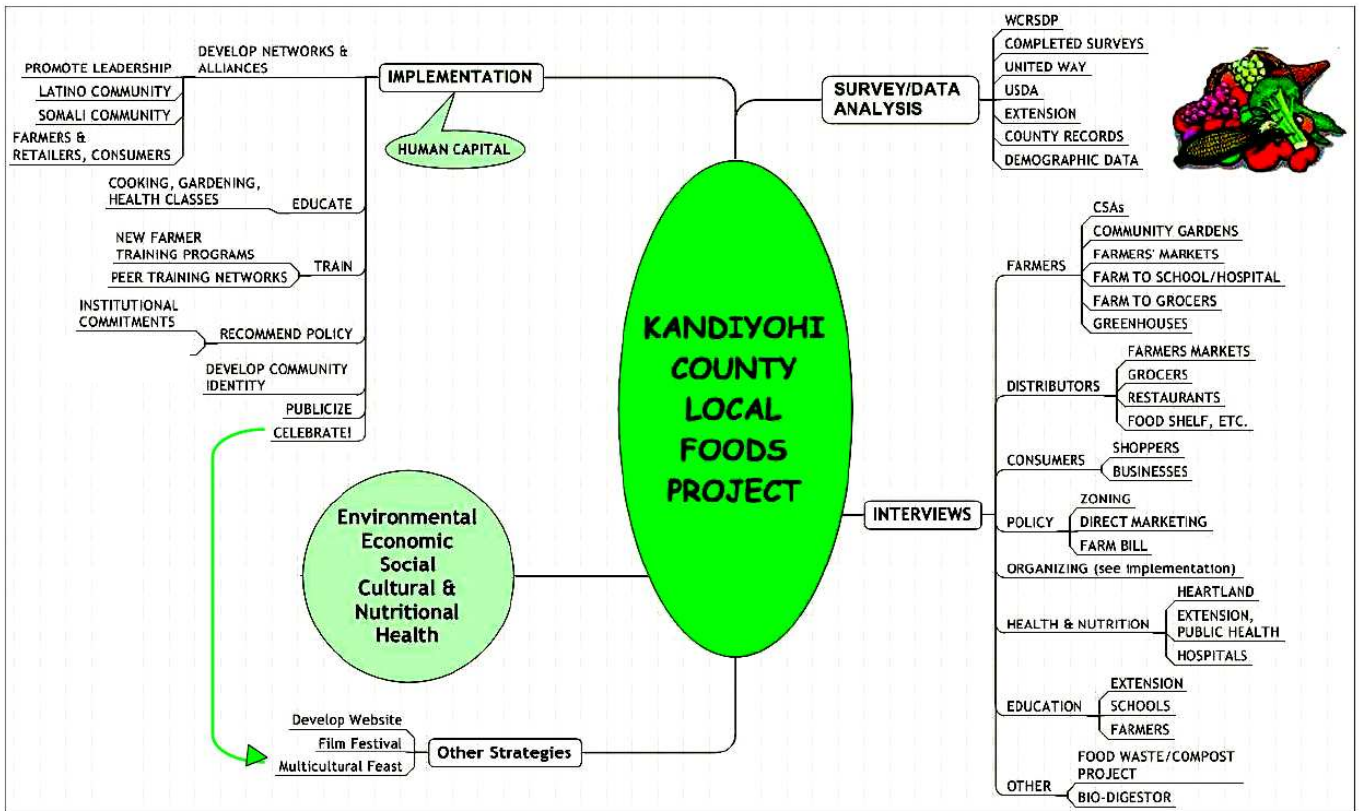
Illustration for assessing future outcomes

Goals	Outcome	Indicator/Measure	Performance Standard
Increase access to fresh, local food	Create more CSAs in Kandiyohi County	Increased number of CSAs & number of subscribers	5 new CSAs with an average subscription of 30 consumers each
Improve satisfaction with access to culturally desired foods	Establish a new community garden in the Latino neighborhood	Latino participation in community gardening	50% of Latinos surveyed report being “very satisfied” with new access to culturally desired foods
Fresher, healthier foods available to school children	Increase farm to school program	More farms providing local food and more schools using local food in lunch menus	5 new farms providing local food and schools increase local food purchases to 5%
Stimulate new local businesses & the local economy	Creation of businesses that source local foods	Establish a local tortillería (tortilla factory) that creates jobs, and purchases local corn	1 new tortilla factory, employing 10 individuals that purchases 15 tons of corn from local farmers each year
Preservation of farmland	Grant to increase the number of new farmers	Scholarships to train new farmers by Farm Beginnings	10 new farmers trained and 8 new farmers start up new farms
Etc.			

Successful local food system projects can document the resources tapped, improvements to educational, knowledge, and skill-enhancing results, and demonstrate positive changes through outcomes achieved (Pothukuchi 2007). A successful project will incorporate **implementers** to set particular projects in motion, **partners** who support the projects through participatory action, **participants** who are served by the projects yet are actively involved in implementation, and **evaluators** who reassess the success of selected projects.

In sum, the overall mapping for the Kandiyohi County Local Food System Assessment can be illustrated in Figure 2:

Figure 2. Mapping for the Kandiyohi County Local Food System Assessment



ASSESSMENT FINDINGS

The following sections of this assessment report examine findings from data collection, the literature, and interviews.



According to Ken Meter, **creating a local food system is the strongest path to economic development.** Meter's (2005a) research on agricultural economies offers significant insight into the obstacles to promoting local food production and more importantly, the opportunities for implementing alternatives to the industrial model that makes up the majority of our food system. Taking into consideration the West Central Minnesota region, from 1993-2003, 10,011 of the region's farms achieved farm commodity sales of \$1.44 billion per annum. An often neglected fact is the costs to the society. The production costs for these crops are \$1.59 billion, surpassing sales and resulting

in a net loss of \$153 million each year. Taking the entire period into consideration, the cost of this loss was astounding \$1.7 billion. Why are the costs to farmers greater than profits? Annual expenses for agricultural inputs (fertilizers, herbicides, pesticides, etc.) are \$200 million. Examined from a social perspective, 34% of the region's farmers lost capital. What keeps this system going? Farm subsidies! The federal government subsidizes farmers at a rate of about \$167 million per year, still \$80 million short of covering costs of production. Over a 10-year period, the government paid \$275 billion in subsidies to farmers. Yet only 10% of farmers receive between 66-80% of all commodity subsidies (Marqusee 2008). When we realize that subsidies go largely to commodities and that fruit and vegetables are not subsidized, changes in farm policy are in order.

Farmers spend \$600 million per year purchasing agricultural inputs outside the area to produce crops at a net loss of \$150 million (Meter 2005a). Ironically, some large-scale agribusiness enterprises offer substantial employment for the region, but they also depend on inputs acquired outside the region, massive confinement operations, and export marketing firms, thus work against efforts to develop local, sustainable agriculture (Molenaar 2005). Economic development is essential to the region's vitality, and agriculture as well as agriculture-related businesses contribute to economic vibrancy of the region. Some would think that supporting local farmers and alternative forms of production would do little to create jobs in the region. A vision that takes into account the synergies of agricultural economics leads to a different conclusion. One positive element is that two-thirds of the BRE sample of 52 farmers surveyed reported that they purchase services and products locally. Farmers did complain that there are few farm suppliers in the county and reported the absence of local seeds, feed, feed grinders, and equipment (Molenaar 2005). *If* local businesses are in place, farmers will spend those dollars locally. These survey results indicate areas of potential action for the local food system project.

On the consumers' side of this equation, residents of the West Central region spend \$354 million on food annually, \$250 million of which is destined to food that is *not* local to the

region. As Meter points out, combining production losses and losses from consuming non-local foods, the region accrues an astounding annual loss of \$1 billion per year. The 173,000 residents of the West Central region combine an annual purchasing power of \$3 billion. Direct farmer to consumer sales from 271 farms reach \$871,000. Despite the predominant industrial model, the region boasts 7% of the state's organic production, valued at \$562,000 (Meter 2005a). The opportunities to stimulate the local economy are clear in the region's markets for food: \$29.7 million for meats, poultry, fish, and eggs; \$48.3 million for fruits and vegetables; \$21.9 million for cereals and bakery products; \$33.5 million for dairy products; and \$67.1 million for sweets, fats, and oils (Meter 2005b). Given that Americans spend an average of \$2,964 per capita on food (USDA 2000), encouraging more people to purchase locally-produced food will stimulate the local economy. If we take a county population of 40,784, hypothetically they generate \$120,883,776 in food purchases annually. If only 5% of that included local food purchases, the county benefits from \$6,044,189 in local food sales per annum. Eating away from home is an increasing trend, capturing 47% of the food dollar (USDA 2000). Thus supporting restaurants and groceries that market local foods will likewise benefit the local economy.

“If consumers in the region bought 20 percent of their food directly from farmers. it would bring in \$70 million in new farm income to the region, and cut the distance food travels and energy used to feed the 173,000 people living in the region” (Schlosser 2007:1).

Steve Renquist, Director of the Economic Development Association (EDA) offered critical insights into possibilities for developing a local food system. He clearly asserted that the measuring sticks for economic development can not be separated from community development. Standards of living must be created that are both adequate and affordable. Work force development is a critical component; how can a community create “expendable income”—the dollars left for development after basic living costs are met? There is need to increase availability of food, improve nutrition, and develop new businesses that can diversify the ways people in the community make a living. There are a variety of ways, he explained, to create opportunities to go back to small farms, by truck farming on small land units in a land-stressed economy, raising free-range chickens, producing BS-free milk, and so forth. Steve pointed out a serious impediment to new farming opportunities, however, due to the IRS “1031 Exchange” Code passed in the 1980s. Under the code, individuals can sell land without paying a substantial capital gains tax. Farmers and farm groups have called for elimination of the tax because of the trend for urban landowners from outside of the area to artificially inflate land values, making it difficult for new farmers to purchase land. While potential farmers are outbid by investors—who often purchase land and then rent it out—consolidation of farms has been one result. Generally, outsiders do not spend their money locally. This situation is particularly pronounced in a context of aging farmers cited above. Steve Renquist referred to these newcomers as “carpet baggers” who own 70% of farm land. A major problem is that the farm economy pushes farming to larger scale, when smaller scale is more sustainable.

An additional critical insight provided by Steve Renquist relates to how people conceptualize sustainable agriculture: “The economic reality is that sustainable agriculture can occur “when green stops meaning hugging trees and means making money.” A program to

“The economic reality is that sustainable agriculture can occur “when green stops meaning hugging trees and means making money.”

educate consumers on the health benefits, and to educate school children, who in turn influence their parents' purchasing decisions, can contribute to improving popular conceptions regarding local food. Steve stressed the importance of an integrated demand – sales – distribution system that makes such a system economical. Different specialists stress different elements of this triad. Joanne Berkenkamp, of the Institute for Agriculture and Trade Policy (IATP), insists that distribution infrastructure is the more critical component in connecting farmers—as producers—to consumers. Steve Renquist concluded that if money is to be made, supply and demand will take care of themselves. A large store such as Cub foods will buy if they believe they can profit. In other words, creative entrepreneurs will find ways to satisfy demand; it is a matter of proving the demand is there. He concluded, "We can't create the market. Occasionally someone creates a market, but it is rare. The connection between supply and demand – that's the biggest obstacle." One organic farmer stressed demand: "We need to dispel the myth that eating local food is elitist. It's the way the world eats, and we need to join the rest of the world. Farmers can produce great local food, but if people don't buy it, we're going to go out of business" (Damos 2008). With few local sustainable farms in the region, weaknesses in distribution systems, and a clear need to educate people on the rationale for purchasing local foods, it is the conclusion of this assessment that all three components—supply, distribution, and demand require significant attention in bringing about a viable local food system. In assessing the Kandiyohi County local food system, it is essential to identify key stakeholders who may have a positive impact on productive and economic sustainability. The next section turns to the links between supply and demand.

Processing and Distribution

When we examine the chain of production/supply—processing/distribution—consumer demand, one link in that chain is the stores and markets that sell the food that is consumed locally. Almost half of the food we purchase is sold by five major grocery chains. The top two are Wal-Mart and Sam's Club (Meter 2005c). Shane Theisen, Manager of Cashwise, exclaimed, "Ninety-nine percent of what we sell comes from millions of miles away!" Like most large chains, ordering decisions are made at corporate headquarters. He explained the difficulty of purchasing from local farmers because of food safety issues. Both grocery chains and processors present problems for incorporating local food into the economy. In regard to processors, the merging of Jennie-O Foods founded by Earl B. Olson in 1949 and The Turkey Store founded by Wallace Jerome in 1922 created the largest turkey processing plant in the world, now incorporated into the transnational Hormel Foods Corporation. The Jenny-O poultry plant is one of the largest employers in the region; this industrial processor also supports a number of CAFOs (Confined Animal Feeding Operations) where turkeys are raised. While animal concentration on farms has increased for cattle and hogs, it is especially marked for poultry. Kandiyohi, along with Meeker, Stearns and Todd counties produces 50% of all turkeys sold in Minnesota (Johnson et al. 2002).

While large corporate grocers and processing plants provide much-needed employment, the region is sorely lacking in local, sustainable food processing and distribution operations. These could include local and small-scale fruit and vegetable processors and value-added foods, meat processors, an organic grocery store, a restaurant specializing in local foods, distributors who facilitate delivery of farm products to businesses and institutions, and so forth. Support for small-scale business will keep food dollars circulating in the region while they also preserve local values. The community does boast of two farmers' markets, but other efforts require stimulation.

Farmers' Markets

Two farmers' markets, the Becker Market and the Saturday Farmers' Market, take place weekly during summer and early fall in Willmar. During the summer of 2008 surveys of market vendors and market customers were conducted at both markets. Detailed results and tables are included in Appendix A, for merchant survey results and Appendix B, for customer survey results.

Market Vendors. Both markets include sale of a wide variety of products: vegetables (beets, broccoli, cabbage, carrots, corn, cucumbers, garlic, green beans, beets, herbs, kohlrabi, lettuce, okra, onion, pea pods, peas, peppers, potatoes, spinach, squash, string beans, and zucchini), meats (beef, buffalo, chicken, elk, jerky, and pork), bakery items (artisan and other homemade breads, cookies, donuts, and pies), processed foods (apple butter, jams, and jellies, candy, canned goods, horseradish, lemonade, pickles, popcorn, salsa, and truffles). Many vendors sold non-food items such as artwork, bird feeders and baths, dishes, flowers, games, ice, jewelry, pet items, wooden items, and woven items (hats, potholders, purses, scarves, tablecloths, towels, rugs, etc.). The highest frequency of market merchants come from Willmar. Information about farmers' markets in smaller communities in the region comprises an important gap for which information should be obtained and used to promote a region-wide farmers' marketing system. Promotion of market sale opportunities in surrounding communities not only would be consistent with customers' desires for larger markets, but would increase participation by farmers and gardeners in the region who are unfamiliar with the farmers' markets. Relatively fewer farmers choose to sell products at the Becker market than at the Saturday market. It seems clear that more farmers need to be encouraged to grow for the farmers' markets and to sell fresh produce. Rarely do members of ethnic groups in the area participate as market vendors. Since one part of the local foods project is to support cultural diversity, much more needs to be done to provide more support and incentives to make these markets truly multicultural.

Overall, market merchants rated their experiences with marketing to be extremely positive for opportunities to make their products available, and for fostering entrepreneurship and skills. Few sell organically produced foods. While organic foods appear less important to customers than local foods, promotion of organic agriculture would both increase market sales and make healthier local foods more available. It is highly recommended that vendors identify whether their products are raised as certified organic, organic but not certified, or under other sustainable production strategies. Although sales are minimal, overall, merchants believe that market vending facilitates face-to-face relations with customers and makes a contribution to their livelihoods. Saturday market vendors appear to have a greater chance of higher gross sales than at the Becker market. It would be worthwhile to investigate the reason for this disparity; do Saturday merchants bring a larger volume of products to sell? Does the greater volume of consumers constitute a principal cause for this difference? Some thought should be given to how marketing structure and strategies might enhance farmers' ability to augment their incomes. Data from other questions reinforce the importance of increasing production to draw more customers and efforts to bring more people into the markets. The local communities could benefit from strong efforts to build up these markets to 1) promote more consumption of local foods and 2) to increase opportunities for farmers, gardeners, and others to increase their incomes, stay in farming, and provide for their families.

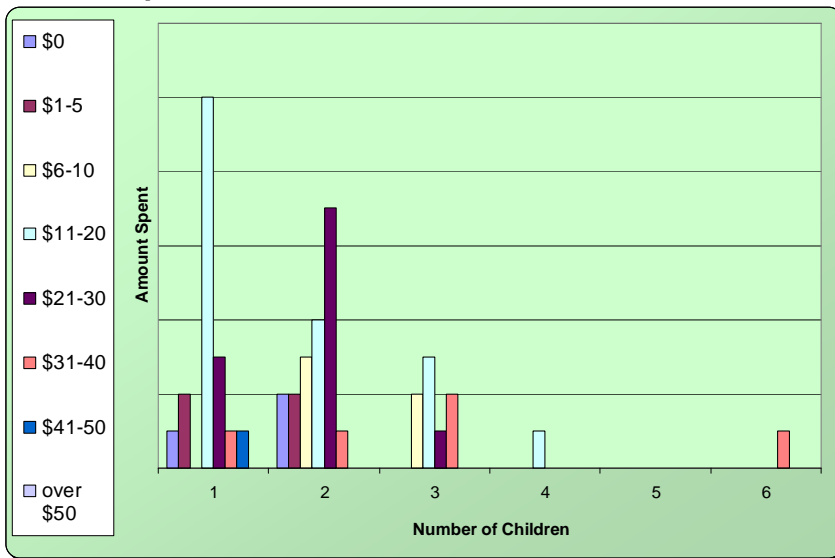
Market Customers. Of the two farmers' markets, the largest and most established is the Saturday Farmers' Market. The purchase of fresh vegetables was the primary reason for customers to patronize the markets, although most visited the markets for multiple reasons. Customers highly regarded the cleanliness, freshness, quality, and variety of products available. Strong preference was shown for home grown, home made items, and the fact that buying direct from local producers supports local farmers. Customers overwhelmingly place high value on friendliness of customers and vendors, opportunity to meet with friends, and the enjoyable environment afforded by bringing farmers and consumers together. Consistently, they gave lower ratings of prices. Education on the cost of transporting foods from outside the region would be especially important in regard to customers' understanding of the costs of food production. Vendors could also play a role in educating customers on costs of production and offer comparative data with conventional prices of long-distance foods. Clearly, ethnically diverse populations are not being served by either the Becker Market or the Saturday Farmers' Market. The vast majority of customers are of European heritage, primarily Norwegian and German, with only 6.2% of customers of Asian, Hispanic, or African heritage who shop at the farmers' markets. In light of the local food system project's goal of enhancing availability of culturally appropriate foods, this stands as a commentary on the inability of the markets to attract these populations and to serve their demands for ethnic foods. Obviously, much work needs to be done to: 1) provide appropriate foods at the market to serve a culturally diverse population; 2) encourage diverse people to market their goods; and 3) organize markets in additional neighborhoods where they may be more conveniently located for diverse populations. Customers also indicated a desire for more prepared foods, more fruit, and coffee. Among market shoppers, 65% strongly agreed or agreed that they eat less fast food because they shop at the farmers' market. The fact that 18.8% disagree and 14.4% are unsure suggests the strong hold that fast, ready-prepared food has on the consumer. Here too, education as to the health, environmental, and economic impacts of eating fast foods is critical for supporting the local food system.

Several survey questions resulted in surprising results. Customers in general spend very little of their food dollars at the farmers' markets. The largest proportion, 37.5% planned to spend between \$11-20. Another 25.6% spend \$6-10 and 15.6% spend between \$21-30. These data suggest that a huge portion of family food dollars are spent on non-local foods at large chain stores and the fact that farmers earn very little, indeed, through farmers' market sales. One gap in information is a comparison of farmers' market prices with that of local grocery stores and supermarkets. Such a study could be worthwhile if prices tend to discourage purchases at farmers' markets. Support, more advertising, and education to the values of buying local foods is imperative to augment the number of vendors and draw more customers. Supplementary events such as diverse forms of entertainment would attract greater attention. Educational activities (booths, pamphlets, media presentations) could be coordinated with the markets themselves. A most surprising outcome of the market survey is the fact that most shoppers (49.4%) live in households of two persons and 71.3% have no children. Another 18.8% lived alone. Less than one-third (28.7%) live in households with children. There were few differences among Becker and Saturday market shoppers. Large numbers of people apparently are not seeking out healthier, locally grown food for their children. Among shoppers with children under 18 years of age, 6.5% planned to spend no money, 8.7% planned to spend \$5 or less, 10.9% planned to spend \$6-10, 39.1% planned to spend \$11-20, 23.9% planned to spend \$21-30, 10.9% planned to spend \$31-40, 2.2% planned to spend \$41-50, and none planned to spend over \$50. Again, the amount of food dollars spent to ensure children's healthy nutrition is less than expected. Education to teach

children the values of healthy eating, encourage parents to spend more food dollars on local foods, and integrating these efforts with the farm to school program is highly advised.

If these statistics represent an aging farmers' market clientele, this should raise concern about the healthy eating habits of the current generation of children. Strategies should be devised to get more parents to actively seek out local foods at the farmers' markets and to complement this by supporting the farm to school program to a greater extent. These data may also reflect a select clientele that views farmers' markets more as a niche market for environmentalists than a necessity to broaden the provision of healthy, local foods to the entire population, including children.

Amount spent at farmers' markets and number of children in the household



Bergen's Prairie Market in Milan is another market that contributes an important effort in supporting the local food system. Owner Bergen Standahl opened the store six years ago, with no background in grocery store management. He buys locally-produced foods because his customers were farmers and they were buying from him, so he decided to reciprocate. "It was economic. They're giving me the complement of doing business with me. Why shouldn't I do that for them?" He is friends with most of the farmers. About 5% of his products are local. He would sell more, but the producers aren't big enough. If local foods were available, he would stock more. "It's a relationship," he said, explaining that his entire produce case could be filled with local products if they were available. His assessment of this situation clarifies even further the need to promote local farming. When asked how stocking local foods affected sales, the owner explained that "sales took right off, people that aren't going to go that way, you'll never get them." How do prices compare on organic foods? He claimed they are 20-25% higher for organics, due mainly to the smaller scale of production.

Yet again, the socio-economic networks formed among actors in the food system are present here. Bergen claimed that the Fernholz sisters of Earthrise Farm in Madison are his most consistent supplier of eggs. He enquires of them whether they have anything in abundance and if they do, he buys from them. Bergen's interns live in Madison, so they bring the food; these pre-existing transport networks are helpful, as also seen in case of Garden Goddess

Greenhouse (see below). He previously bought products from Dry Weather Creek Farm until it closed, causing him to lose access to their organic flour and goat cheese.

Bergen remarked that rural areas lack infrastructure for year-round production. There is no local locker. He buys local meats from Double D Natural Meats; these are all frozen. Miltona has the only locker and they sell on an order basis, but the meat does not look as fresh (fresh meat quickly turns brown, he explained). USDA rules pose further restrictions. He can buy beef, cut it, and sell it; but if he buys from a neighbor, he can not sell the meat. He implied that *local* foods are more important than organic foods: “You can buy from Earthbound but it’s the same as buying from Dole. The key is people want to know who they’re buying from, that it’s fresh, and higher quality.”

Carlson Meats, located in Grove City, is one of the very few local meat processors. The business was founded by Chuck Carlson’s grandfather in 1913. He did business only with town people. Back then, Grove City had three restaurants; today it has none and no grocery store. His dad charged two cents per pound to process and \$20 for a half beef. In the 1950-60s, with the addition of a new modern slaughter house and aging coolers, the business changed from fresh daily meat to custom processing and frozen meat sales. From talking with Chuck and Christen Carlson, it became clear that all their business is local: “We’re trying to help people on a small scale locally.” They buy from local people, and most of them sell the processed meat within the state (they were unable to specify to whom and where). When I mentioned local, small-scale, sustainable production, Chuck replied, “The path we’ve chosen reflects that. That’s what we pride ourselves on.”



Carlson
Meat Processing, Inc.
(320) 857-2261

3rd generation of quality, value, and hometown friendliness

Preserving Traditional, Local Businesses.
I have eaten virtually every cut of meat and smoked product produced by Carlson Meat Processing. It is my opinion that this traditional butcher shop, operating on a small scale, with careful devotion

to every aspect of meat preparation, and with personal dedication to quality and service to its customers, is one of the best-kept secrets of the food industry. It is located in the very small village of Grove City, Minnesota, but every one of their products is world-class, from the frozen meats (roasts, chops, steaks, etc) to the exceptional cured products like hams, ring bologna, summer sausage, wieners, and smoked salmon. If anyone is looking for the best quality meat found anywhere, this is the place!! *Curtis Olson, Associate Dean for Undergraduate Studies and Operations College of Music, Michigan State University* (source: Carlson Meats web site, <http://www.carlsonmeats.com/testimonials.html>)

Chuck Carlson slaughters buffalo, cows, pigs, lambs, and has slaughtered yak, emu, ostrich, and goats. Carlson’s does not process much organic meat, yet most of the meat they butcher is healthy with no hormones. He is able to do *halal* processing (according to Muslim prescriptions) but stated emphatically that butchering goats—due to their small size—was inefficient. Mexicans come frequently to buy ox tails (a favorite delicacy), beef heads, skirt steak, and ribs. Somalians want goat, but Chuck said they wanted to barter down the price too low; Somalis do purchase goats from the Lester Johnson farm, just east of town.

Carlson's also butchers sheep weekly and sells mostly to restaurants and groceries in the cities. Demand for particular items varies with the season.

Carlson's also has a room, smoker, and equipment for making various kinds of sausages and jerky, many of which are for sale in their front store room. Some farmers request their own labels to be put on them, then they resell at the farmers' market. A tour of the processing plant revealed that 7 or 9 cows, 3 pigs, and 2 lambs had been slaughtered that day. They butcher 100-150 buffalo per year including buffalo from J&L Ranch. Customers bring animals for processing, but they do their own selling once processed and Chuck sells only products he makes himself, like sausages, jerky, etc. For processing the charge is 45 cents per pound, which is lower than what large-scale slaughter houses charge; slaughter fee is \$38 per beef animal, hanging/dressed weight is 45 cents per pound, and grinding fee is 15 cents per pound. Buffalo costs \$70 and the inspection fee is \$30—USDA does not consider buffalo meat!—and won't inspect it.

The labor is demanding and Chuck stated it was extremely difficult to find skilled workers. They hire 8-9 workers but there is a labor shortage. Like the small-scale processing plants that process local meats, the Pipestone school that taught butchering skills was phased out. There is a clear need to teach these skills so that small, local butchering shops can continue to serve local communities. Chuck and Christin Carlson worry that they are getting older and their own children are not interested in the business. There may be no young people with the work ethic to carry on. When Chuck eventually gives up his business, he is willing to stay on several years to train new workers. This business provides an excellent demonstration that in an economy with cutbacks in jobs, it would be wise to tap into and train those affected, particularly, some of the hard-working immigrant populations, as an alternative to their heavy employment in large-scale meat packing plants. Indeed, Chuck Carlson, in a letter published in the West Central Tribune, appealed to Governor Pawlenty's proposed plan to help new businesses with tax credits, explaining lack of help as a major problem for a business that promotes the rural economy. That letter expressed his dismay at the contradiction between efforts to create more jobs and lack of response to his efforts to recruit.

Some processors can be state certified, but Carlson's is USDA certified. Their own business is geared toward custom processing (they slaughter, then sell a quarter of beef in cuts); there is also federally inspected processing where they buy the live animal and sell direct from the farmer. Before, USDA inspection was required to process and resell a live animal. The state now has an "Equal to" ruling so the USDA can be circumvented, but the meat can not be sold outside of the state. When USDA came to Minnesota to inspect in 1972, Chuck's father decided to go with USDA because he was warned that those processors that did not would be going out of business. Chuck said "it was a big move." Because they are federally inspected, they can buy beef, process it, and sell it, or let the farmer sell it. Inspection must be done during processing. A USDA inspector spends many hours per week overseeing much of the work that goes on at the facility. The regulations are "overwhelming. I put up with that all the time." Chuck spends a lot of time in inefficient and meaningless tasks to comply. Their greatest obstacles are government regulations, and record keeping and the increase in these is a financial burden. What they most need is qualified help. How does their business do? "It's just hand to mouth." They pay \$2000 per month just for electricity and insurance and workman's compensation costs them \$10,000 per year.

Carlson's is losing customers because farmers are deciding not to raise animals anymore. Ethanol has greatly increased the cost of corn and farmers are unable to buy feed. A farmer from Litchfield, who used to process 20 animals per year at Carlson's came in said he was quitting. I asked if they considered selling meat to groceries, restaurants, schools, or hospitals. Their son worked in the meat department at Target where all meat arrived packaged. Chuck commented, "It's so misleading, it's just not right." They do not even want to sell to groceries because they may go out of business and not pay their bill, and schools take too long to make payments. It isn't even possible to sell local for school lunches anymore. They did 20 years ago, but school personnel no longer cook since everything is purchased already prepared. Even so, supply is greater than their ability to get all the meat processed and fill orders. Carlson's has annual sales of \$230,000, indicating its significance to the local economy. This would suggest that the establishment of new, local processors is needed. As we discussed the growing interest in small-scale sustainable farming, Chuck remarked, "Everyone wants to promote local farmers, but they can't do it without us. There's a sort of gap where there's a lot of work out there. There's a lot of work out there."

Wick's Meat Shoppe, located in the town of Kandiyohi, offers yet another insight into the fragility of local meat processing as well as the economic opportunities in supporting these small-scale processors. Mark Stahl, owner of this company, explained that the shop began 60 years ago as part of a creamery. The creamery is now closed. He bought the business 21 years ago. Between 70-80% of his business is with customers who live within 30 miles, most of whom buy from his retail counter. He does some wholesale sales to Jahnkes Foods, a grocery store in Spicer, Vern's Town and Country Foods grocery in Attwater, Debbie's Convenience in Willmar, Eagle Lake Country Store in Willmar, and tourist hot spots such as County Park #5 at Green Lake, and County Park #3 at Diamond Lake. All of these are in Kandiyohi County.

Mark informed that there used to be meat shops in Spencer, Willmar, and Attwater, but as family farms got smaller, they raised fewer animals (30-50 farmers raised about 12-20 head each). But now there are only five small, local farms, and the remaining breeders who raise cattle on a massive scale do not process their meat locally. Obviously, scale is driving out small farmers who keep money in the local economy. Mark does try to educate people about the advantages of a small processing shop. He still calls on farmers, but has not advertised in 10 years. Instead, he depends on word of mouth. Another challenge is that "Part of the problem today is that society is into convenience—they want their food precooked and ready to eat. For people 40 years and under," he said, "most of them don't know how to cook any more. Before, kids on farms had to learn how to cook. The only reason we're still in business is that other plants didn't want to make the changes." He reported that of twelve processing plants that closed, only two of them were sold. When there were buyers, it took double the costs to bring them up to code. They don't want to spend \$200,000 to \$300,000 to upgrade. "That's what's happened—it pushed the small guy out." Although he is fairly young, when Mark retires, he will sell his equipment, since "It takes a different breed of animal to stay in this business." But for now, he said, "I'm passionate about what I'm doing. I swallow my tongue sometimes and just move on."

Mark does not feel in competition with other processors but serves a different clientele. Few of the farmers who do business with him raise their animals organically, but he has a good supply of meat for processing. Beef is easily obtained, although the hog supply is more difficult because "There are no small guys left." In terms of volume, he sells 2000 pounds per

month wholesale, and 8,000—10,000 pounds per month retail. Fresh meat makes up 15-20% of his business, plus he sells sausage, marinated steaks, marinated chicken breasts, brats, wieners, and jerky—the major share of his business. Most of this is smoked and precooked because “People want fast and convenience.” Only a half to one percent is fresh sausage that has to be cooked—of that, he sells 50 pounds per month, but thousands of precooked sausage. The market price on live animals is 89-94 cents per pound, live weight for beef. For processing, he pays the farmer \$3.25-3.35 per pound for beef, and \$1.75-2.95 per pound for pork. He gets requests for buffalo, and occasionally for goat and lamb. Hispanics call and want beef skirt, intestines, and stomachs (which are not federally inspected). No Somalis come to his shop.

Many of Mark’s customers come from the cities and have cabins on the lakes, especially during the period of Memorial Day to Labor Day. He remarked, “I can count on two hands the people that live here” (Kandiyohi has a population of 500 and few buy from him). He has about 200-250 customers per week during summers, quadruple what he has the rest of the year. He does not sell to schools and institutions because of the regulations. Mark hires four employees and three part-time workers and works seven days per week himself.

Like Carlson’s, the owner of Wick’s indicated exasperation with the excessive regulations imposed on the business. Mark did custom processing for farmers. When he worked for the previous owner, they were *custom exempt*, meaning he could only process for farmers who wanted the meat for themselves. If a farmer sells to a neighbor, the animal must be live. Unlike Carlson’s that is USDA certified, Wick’s adopted the “Equal to” inspection, which is state, rather than federal. Therefore, he must sell within Minnesota. When I mentioned the Carlson manager’s complaints, Mark responded, “I would echo his comments 130%. You can’t imagine the regulations we go through.” Of the USDA’s HACCP (Hazardous Analysis and Critical Control Point) regulations—“This is an absolute retardation of paperwork and bookwork. That’s why small plants are no longer processing.” He has to keep track of which farmers he sells to, even who they sell meat to, and inspectors check his computer and the date, phone, and address for each must match. Every batch of processed sausage has to be documented with three pieces of paper. “It is absolutely ridiculous,” Mark said, as he explained that he had spent two hours arguing over new regulations—he was written up because he had not initialized his own initials on a document. He argued with an inspector saying, “Do you think I’m going to risk my reputation and have somebody get sick? That would be the end of me.”

After explaining to me that “I’ve never had a recall on any product,” he lamented, “There aren’t going to be any of us around anymore. It’s getting too government regulated. We can’t compete with the big guys.” He said that in an association of meat processors who meet regularly, 90% of their meetings are bull sessions on the over-abundance of paperwork. Mark recommended that there be a different set of regulations for small and large processors, “but you’ll never get them to change.” I asked what could be done: “I really don’t know how to answer that question. We can’t change the inspection system. To deal with more local people—that would have to be through public education.”

Kandi Cupboard Food Coop in the center of Willmar is a member-owned store that offers life-time memberships for \$25 and charges a \$10 annual maintenance fee. Members receive a 5% discount on purchases. During the first half of 2008, 540 members paid their fee. Because some life members do not pay the fee, others move, and so forth, there are no

exact data on number of members, but Lynnette, the manager believes there are around 2400 members. This indicates a very strong interest in local, healthy foods. One difficulty the coop faces is that people are no longer baking or doing home cooking and this has affected sales. Kandi Cupboard uses volunteers to work as cashiers, take inventory, and do maintenance. Volunteers receive a 20% discount on purchases. The store sells bulk foods and carries a variety of flour, pasta, spices, rice, tea, and all baking needs. Kandi Cupboard carries fresh eggs from a local farmer in Brooten and farm fresh vegetables from a farmer in Lake Lillian. It also sells eco-friendly cleaning products. Customers receive fresh, local products while contributing to the local economy. Lynnette, the manager, would be interested in using her list-serve to conduct a survey of customers. Unfortunately, time did not allow this to be accomplished for purposes of this assessment. Lynnette wants to carry more local fresh vegetables but is unable to do so because she lacks a cooler. A project to assist this enterprise to acquire a cooler would allow Kandi Cupboard to sell locally-produced foods.

From these few examples of markets and processors (others will be discussed under "Cultural Diversity" below), we note several commonalities that signal action for the Kandiyohi County Local Food System Steering Committee to promote economic development. First, demand for local foods is clear, but supply is lacking (Bergen's, for example, can not access as much local produce as the owner would like to stock). Linkages between production and consumption are problematic (e.g., excessive USDA regulations, lack of education on the part of the public, and there is lack of local processors for animals raised by local farmers). Scale is driving out small businesses (as seen in the animal breeders who now resort to large-scale processors). People have become accustomed to fast, processed foods and this has cut sales. Finally, these businesses had synergistic relations with local production units (e.g., Bergen's acquisition of eggs from Earthrise Farm, and Carlson's processing of buffalo from J&L Ranch). The owners of these local processing and distribution businesses all expressed passion in serving the local community and demonstrated a sense of social connectedness to that community.



Organic and Sustainable Farming Systems

The several farms that will be detailed in this report most often employ organic production methods without USDA organic certification. A directory of Minnesota organic farms may be consulted at

<http://www.leg.state.mn.us/docs/2008/other/080476.pdf>.

People interviewed often placed greater value on local, rather than organic production per se. Organic farming, nonetheless, has been one of the fastest growing segments of U.S. agriculture for over a decade. When Congress passed the Organic Foods Production Act of 1990, the U.S. had under

a million acres of certified organic farmland. Certified organic farmland quadrupled between 1990 and 2005. With California leading at 1,916 operations, Minnesota ranks fifth with 433 certified organic operations, including 116,813 acres in certified organic crops and 12,250 in certified livestock, for a total of 129,064 acres. Among the most numerous certified crops are 20,822 acres of corn, 10,182 of wheat, 6,371 of oats, 3,625 of barley, 2,136 of buckwheat, plus minor crops. The state counted 750 acres of certified tomatoes, lettuce, carrots, and mixed vegetables and 80 acres of certified organic fruits. Livestock includes 10,062 cows,

pigs, and sheep (with cows being the most frequent—4,811 dairy and 3,925 other cows), and 269,868 chickens and other poultry being raised organically (USDA 2005).

Organic farms replicate conditions in the natural ecosystem. As holistic units, they take advantage of local resources, thus lower costs by avoiding purchase of external inputs. Organic farms employ **agroecology**, using biological fertilizer (compost, worm humus, plant residues, green manure), integrated pest management, and avoid use of synthetic chemicals on crops or the introduction of antibiotics and hormones to livestock. Natural predators may be introduced as a means of pest control and certain plants are inter-cropped to prevent pest outbreak or attract beneficial insects. Biodiversity is the key to organic farming systems that take advantage of synergisms between different plants which provide mutually beneficial nutrients and combine livestock and crops to utilize natural fertilizers, compost, and green manures. Organic production makes sense in a global economy stressed by high costs of fuels, where conventional agriculture erodes natural environments, and nations become dependent on costly imports of fuel and agricultural chemicals. Such was the case in Cuba following collapse of the Soviet Union. Sustainable organic production became the key to revolutionizing the Cuban food system by keeping production and distribution local, reducing production costs by working with the natural environment rather than against it, and by providing safer, healthier food to communities. Western Minnesota can adopt these practices to create a more sustainable environment. Obstacles to organic production include risks associated with shifting to a new way of farming, high managerial costs, limited awareness of organic farming systems, lack of marketing and infrastructure, and inability to capture marketing economies (USDA 2005).



Cuban organic farm

Related to organic production is the significance of crop diversification. In the Sunger-Anderson WCRSDP Assessment Report, for 34 needed assets in the West Central region, the researchers identified expansion of markets for crops that diversify the landscape as the most pressing need and agricultural diversification as the third most needed factor for stimulating development. New farmers should be encouraged to diversify, and gradually move to organic production, even if not certified. More and more, consumers seek variety and the freshness of local foods produced by local farmers that they come to know through farmers' markets, CSAs, and so forth.

Farming

A major shortcoming is the lack of local sustainable farms in Kandiyohi County. Indeed, the Pride of the Prairie Guide lists only one such farm (J & L Bison Ranch) in the county (see Appendix C for a complete list of farms organized around local farming in the region). Surrounding counties do have a number of them, although not many. As evidenced in the data above, most farming in the region consists of corn-soy rotations using conventional farming methods. In order to supply farmers' markets, school cafeterias, hospitals, and other venues, a dependable supply

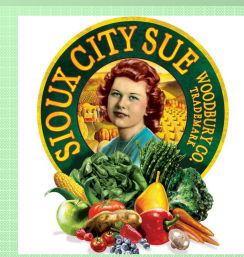
The family farm is the only remaining symbol in America that connects people to the land, their food, and their neighbor
(Robert Marqusee)

must be present. Creating growth in the number of local sustainable farms will be challenging, as one interviewee stated, “You have to prove to them it is economical to shift from soy to local food.” What can be done is to create spaces for alternatives by tax rebate policies, locating land that can be economically farmed by new farmers, and encouraging current farmers to experiment with sustainable methods on small parcels of their own farms.

The success of the Woodbury County, Iowa local foods initiative is instructive. Like other areas, the county experienced population decline, decreases in number of farms while farm sizes grew, and drops in rural incomes. Less than 5% of food consumed in the county came from Iowa farmers, and 92% of the land was in corn and soy commodities. These facts are exacerbated by huge federal subsidies to corn, soy, and other commodities. Rob Marqusee, Director of Woodbury County Rural Economic Development, asked, “Why are rural communities shriveling up into dust?” He concluded there were two reasons:

"When you say to the biggest farms in the country, 'The bigger you get, the more money you get from the government,' then the farm program effectively subsidizes the destruction of family farming"

(from Rob Marqusee presentation, Creating Our Own Vision For the Future, at the Raising & Marketing Locally Grown Conference, Danube, MN, November 16, 2007).



“Subsidies and GMOs together—there’s no doubt about it. The facts are incontrovertable” (personal communication). Because the county lacked money, the response had to be through policy. People in the county came together to address these trends and rebuild the local food system in the shadow of the global food system. The community acquired a closed firehouse and converted it into a community center, restaurant, and farmers’ market. In 2004 the Floyd Boulevard Market became a hub for sales of local food, much of it organic. In just six months they sold \$400,000 in local foods. In fact, demand exceeded supply, so they passed the first Organics Conversion Policy that gives a 100% property tax rebate for five years on land converted to organic production, supported by a \$50,000 per year reallocation from the Board of Supervisors’ general account. Beginning organic farmers receive land free for three years, then an interest free mortgage (see Appendix D for these policies). The results are clear: organic food generated 52% more gross sales, 182% more personal income, and 56% more jobs per 1000 acres compared to commodity crops. Then in 2006 county institutions were mandated to purchase organic foods, shifting \$281,000 to local farmers.

Woodbury County residents originally wanted an ethanol plant to stimulate economic development. Research reveals that the cost to state and local governments (and thus taxpayers) for each job in industrial, commercial, or residential development projects is \$42,000. An ethanol plant employing 40 people would receive a \$2 million tax abatement for a 10-year period. Unlike a local farm, an ethanol plant would cause much money to leave the county. As a result, the county would forego \$50,000 per job in tax revenues. Taking into consideration that the government subsidizes ethanol at 70 cents per gallon, a 100 million gallon plant would be subsidized to the tune of \$70 million (Marqusee, personal communication). On the other hand, farming per se must be considered a job, for which counties do not provide benefits. **The benefit of supporting small family farming communities is thus only 1% of the cost for conventional economic development.** Small family farms create multiplier effects through purchase of farm inputs from local

businesses, and by spending family farm income in the community. To back up this statement, David Swenson’s (2005) research shows the regional economic impacts of small farms:

Regional Economic Impacts of a Small, Diversified Farm

	Farm Level	Regional Economy	Multiplier ²
Output	\$153,500 (gross receipts)	\$212,090 (gross sales)	1.38
Labor income	\$ 40,812	\$ 59,104	1.45
Other income	\$ 17,895	\$ 29,171	1.63
Jobs	1.5	2.15	1.43

(source: Swenson 2009)



By opting for policies that support local organic farms, Woodbury County is now drawing new people into the region to take advantage of tax rebate and food procurement policies and the revolutionized local economy. One thousand acres have been put into organic food production to access these local markets. One example illustrates this success. Joshua and Jeremiah Alexander and their children Gloria, Charity, and Kim are in the process of moving their farm 1000 miles from Garfield, Texas—where Kim has been very

successful building a sustainable 350 acre farm—to Woodbury County, Iowa. Kim left Iowa 21 years ago in the aftermath of the 1980’s farm crises. It was a devastating time for farmers; many put their land in the Conservation Reserve Program (CRP), and farming in Iowa was less than attractive. The family is returning because of the Woodbury County policies that support his farming philosophy and practices. The Alexander Family Farm is a diversified family farming operation that has 20 different income streams. Kim pioneered pastured poultry in Texas and employs a technique made famous by Joel Salitan, operator of Polyface Farm in Virginia. The Egg-Mobile, a portable laying hen house, allows animals to spread their own manure as a means of fertilizing the land. The humanely handled chickens are happy, healthy, and produce a gourmet quality egg that customers love. This production technique enables a farm family to make a good living. In Iowa, the Alexanders will be raising poultry and cattle - with a substantial business centered around egg production. The Alexanders are spreading the word; Kim has been a speaker at major agricultural conferences throughout the United States and was a well-received speaker at Woodbury County’s “Organic Growers Conference.” (source: Woodbury County web site, http://web.mac.com/marqusee/Woodbury_Organics/Farmer_Profiles.html).

Don Winckler (MMDC) suggested that a tax abatement policy would not be applicable unless it involved agricultural processing businesses that would create jobs and generate market-driven economic development. New local farm input suppliers and new local farmers would prove mutually reinforcing for the local economy. Also, the presence of local infrastructure

² For example, for every \$1 worth of output at the farm level, there was \$.38 in output in the regional economy, making a total of \$1.38.

needs to be ensured in order to create viable local food policies. What infrastructure is present in Kandiyohi County? As will become clear below, a major gap is the lack of infrastructural support for getting produce to consumers, businesses, and institutions such as schools and hospitals.

In promoting a local food system, long-term considerations for sustainability are paramount. An important non-profit, private organization for supporting local farming is the Land Stewardship Project (LSP) located in Montevideo. The LSP began 25 years ago in response to the farm crisis, in the wake of foreclosures, increasing soil erosion, and weakening of farm conservation practices. The mission of LSP is to foster an ethic of stewardship for farmland, to promote sustainable agriculture, and to develop sustainable communities. It creates a new vision for agriculture by organizing communities for positive change and promoting state and federal policies on sustainable farming.

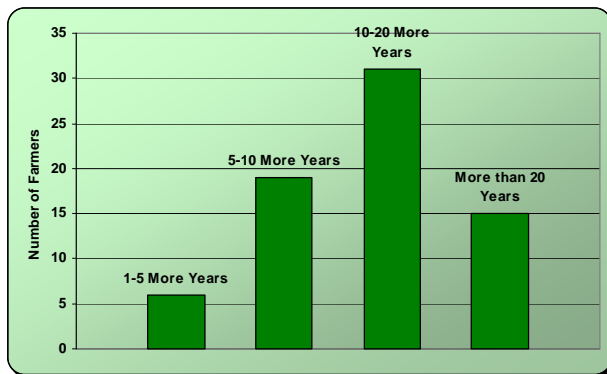
A better way to use scarce land resources in a context of the predominant corn-soy rotation practiced by most farmers would be to identify available land on which to create alternative forms of farming and animal husbandry. Grazing cattle under natural conditions assures more sustainable practices, while keeping money in the local economy. Farmers who make this choice take advantage of the symbiotic relationship of integrating poultry production with cattle. Poultry provides manure and thus nitrogen, when shifted appropriately, to ensure regeneration of grasses for grazing. The poultry also feed on insect pests that can cause disease in cattle and supply protein-rich eggs. The cattle as well provide manure for composting which eliminates need for chemical fertilizers for crops (Pollan 2006).

Terry VanDerPol, Community Based Food Systems Program Director of LSP, informed that since the mid-1980s it has become difficult to find small livestock farms, as most have been replaced by CAFOs. For crop farmers, land availability is a huge problem. To promote livestock farming and sustainable crop farming, LSP sponsors the Farm Beginnings Program to assist new farmers to develop a farm plan based on the farmers' vision and goals, and to gain the skills necessary to successfully operate a farm. Farm Beginnings is a 16-week farmer-led educational training and support program that began in 2000. The cost is \$1000, yet scholarships are available. Participants work with mentors and are connected to a social network of successful, innovative farmers. The program offers practical seminars to work on planning skills and develop a farm plan, conferences, farm tours, and provides resource materials. The objective is to create successful, sustainable farmers and an important component of the program is connecting new farmers with a support network of established farmers who share their successes. A one-on-one relationship between new and established farmers is key to the program's success. New livestock farmers can borrow up to \$20,000 from Heifer International. Farm Beginnings gives a capital gains tax break to retiring farmers who pass their land on to new farmers. According to Farm Beginnings organizer Amy Bacigalupo, the program serves 22 counties in Southwest and West Central Minnesota and they are reaching out to draw in more new farmers from the Willmar area. About 20 families enroll in the program each year. Some participants are already farmers, others purchase or lease land to begin farming. Costs for land purchase average around \$3000-\$4000 per acre and LSP can assist with locating available land. For new farmers interested in renting land, the BRE Report (Molenaar 2005) should be consulted. Summary findings from a survey of 3,689 farmers with 521,958 acres of land indicate that average rents run \$89.34 per acre in Kandiyohi County (the report should be consulted for township level data, including maps and

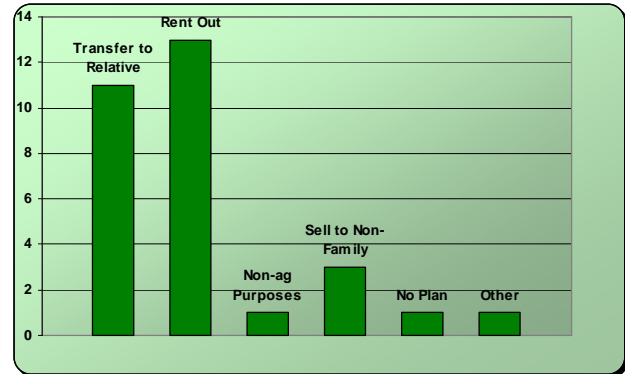
more specific information). New farmers interested in entering farming may find a variety of resources at <http://www.landstewardshipproject.org/farmbeg.html>.

The aging farm population cited earlier presents a particular obstacle to locating land for new farmers. The average Kandiyohi County farmer today is 60 years old, has equipment designed for corn and soy commodity production on a large scale, so why would he or she want to transition to an entirely new kind of production? Survey questions administered to a sample of 62 farmers demonstrate that 66% plan to continue farming between 5-20 more years, most of whom will have reached retirement age. While a large portion of farmers plan to transfer their farms to relatives, 45.7% plan to rent or sell their land (Molenaar 2005).

How long do you plan to continue farming?



Plans if farming is discontinued:



(source: Molenaar 2005:26)

In addition, the average age of farm owners who rent land is 80. This suggests that next 20 years will see significant changes in the structure of land. Indeed, 80% of farm land in the United States is owned by widowed farm spouses. For Kandiyohi County, Rhonda Wulf, Extension Educator, pointed out that much farmland is owned by elderly women (most likely widows) who rent their land out. They often rent to industrial commodity farmers, sometimes for only \$25 per acre, when the going rate should be \$150 per acre. Identification of individuals who rent out land, with the right approach, could render land that could be rented at a slightly higher price to new farmers. This would require working with the extension office to identify potential land owners and connecting them with individuals who desire to farm, but lack the land or the capital to purchase it. To engage farm women who are no longer producing themselves but who might be interested in supporting sustainable agriculture on their land, Wulf concluded, "It touches women more than men; local food has passion attached to it."

An additional resource in the region to encourage young people to enter farming is internships offered by sustainable farming operations. Moonstone Farm, Easy Bean Farm, and Earthrise Farm all offer internships for their organic farming operations. Interns must go through an application process (resume, letter of intent, interest—which is available on their respective web sites). Easy Bean hires from April to October, during growing season. Interns receive room and board, and a stipend (\$100/month at Easy Bean, \$500/mo at Moonstone). Internships at Moonstone began in 2000 and there are about two available per year. Easy Bean offers six per year. Apart from encouraging an increase in the number of new sustainable farmers, it is important to recognize that farming also provides jobs to non-farmers. BRE survey results show that farmers employ an average of 2.34 full-time workers,

1.48 part time workers, 3.15 seasonal workers, and 2.88 migrant workers per year (data derived from Molenaar 2005:50).

According to Terry VanDerPol of the LSP, organic production has a greater rate of return than non-organic. One source for certification is the Food Alliance Midwest. The higher costs with certification, however, lead many farmers to grow food organically, but without certification. Livestock raisers may grow organic beef, but due to the requirement for certified organic meat processing, the meat is often not certified. This fact illustrates the important connections between production and processing. Whereas this assessment considers organic production as ideal, organic methods without certification would be a step in the right direction. Echoing commentaries by farmers' market patrons, processors, and others interviewed, one farmer pointed out that when people know the farmer, certification is less important.

The 2008 Farm Bill. No consideration of creating sustainable environments can elide the 2008 Farm Bill. Rural Development has been incorporated into the farm bills since 1973 and the 2008 Title VI is no exception (Farm Policy.org 2008). The latest \$286 billion dollar farm bill adopted important new incentives to support local agriculture, but carries the double-edged sword of decades of influence by lobbyists and corporations. Between 2003 and 2006, 2,702 farmers who grossed over \$2.5 million in annual income received subsidies totaling \$49 million dollars. While \$16 million in annual crop subsidies go to growers of wheat, corn, rice, and cotton, farmers raising vegetables and fruit receive *no* subsidies. The 2008 farm bill now bans subsidies to farmers with over \$750,000 in farm income (Doyle 2008). Despite this modification, Olson (2008) argues that years of market deregulation that benefited global agribusinesses have only created volatile markets that threaten the well being of farmers, consumers, rural communities, and local environments. The fact that a corporation like Cargill saw windfall profits that surged from \$280 million in 1997-98 to \$2.34 billion in 2006-07 (an increase of 1000%) demonstrates the success of these companies in lobbying for deregulation and against safety-net mechanisms such as grain reserves, acreage set asides, and so forth.

An IATP Press Release itemized gains made for local agriculture, despite these flaws in the 2008 farm bill:

- **Bioenergy incentives**, including \$70 million for assistance in transitioning to biofuel crops; note that this incentive was based on the Reinvest in Minnesota Reserve–Clean Energy bill passed by the Minnesota Legislature in 2007.
- **A significant boost for conservation**, including \$12 billion for the Conservation Stewardship Program to help farmers bring 115 million acres of working farm and ranch lands under improved conservation management practices.
- **Support for local food systems**, including “geographic preference” through federal procurement programs for locally grown foods, funding for new local and regional food supply networks, and \$33 million for the Farmers’ Market Promotion Program.
- **The Diversity Initiative**, which includes a \$75 million investment in the Socially Disadvantaged Farmer Outreach Program.
- **Support for Beginning Farmers and Ranchers**, including a new Beginning Farmer and Rancher Individual Development Account pilot program to help purchase farmland, farm equipment or livestock and additional funding for technical assistance and other services for new farmers.

- **Strong support for organic agriculture**, including funding for organic certification cost share, an organic data collection initiative, a new program for organic conversion, and the Organic Research and Extension Initiative. Support includes up to \$20,000 a year to cover the cost of converting farms to organic agriculture and funds to offset certification costs.
- **A country-of-origin labeling requirement** and a provision for the interstate shipment of state-inspected meats should increase opportunities for independent livestock producers.
- **A food aid pilot program**, which allocates \$15 million dollars annually to experiment with cash purchases for international food aid – an essential reform to a highly inefficient program.

(source: Brasher 2008, IATP 2008)

A number of these provisions provide guidelines for local projects to promote economic development, sustainable environments, local foods, beginning farmers, organic production, and cultural diversity. The potential for accessing technical and financial support for meeting objectives of the Kandiyohi County Local Food System project should certainly be taken advantage of. The assessment report now turns to specific farmers' and processors' experiences to enlighten how these modifications to the farm bill might be tapped into to enhance the local food system.

Dairy Farms. Although no dairy farm owners were contacted during the assessment process, some statewide trends that are concerning, if not alarming, indicate that in the last 10 years the state has lost 173,000 dairy cows which is more than 26% of the livestock. In addition, 21 processing plants have closed. It is estimated that by 2010 the dairy cow population will shrink by another 20%, as milk production is lured to other states. The impact to the state is in the hundreds of millions of dollars according to the Minnesota Farm and Food Coalition (Molenaar 2005). Therefore, support for new dairy farms would stimulate a more viable economy than the large-scale operations that often remove money from the local economy.

Double D Natural Meats is a third-generation farm operated by Bev and Don Struxness in Milan. Don's grandparents built the farm and his father, a dairy farmer, also had 200 hogs. Bev and Don have worked the farm for 39 years. At first, Bev had not wanted to live on the farm due to the economic insecurity associated with farming. Bev and Don built their first hog building and established a cattle feed lot. Then, in the late 1970s the financial crunch hit. From 1976-77 very dry conditions led to production shortages. Bev and Don faced foreclosure for several years. Bev commented, "The swing was huge. If a farmer had \$150,000 in equity that was good," she explained, "but they had a \$250,000 debt." She blamed their problems on national agriculture policies and embargoes placed on U.S. exports. Bev worked with the state legislature. Ann Kanton was state Deputy Minister of Agriculture at the time and told Bev, "Don't be invisible," so Bev fought. The PCA (Production Credit Association) and the FHA gave credit to farmers, but "It was top-down. You don't get blood out of a turnip." At a meeting with the county, the county official was under pressure (after all, he knew the people who owned the troubled farms). The farmers told him, "Hey, we've been subsidizing the consumer." Bev clarified that these problems were a combination of credit debt and costs that exceeded sales prices. The decade of the 1980s was a transitional period for Bev and Don. During this time, Bev also suffered family crisis: "I think I felt older then than I do now, even though I was in my 30s, because we were working so hard

to survive.” Nonetheless, surmounting these experiences helped her to become more empathetic toward others’ problems: “Any experience can help you be a supporter to others.”

The farm crisis led Bev and Don to transform their farming to sustainable, organic production. How did they choose to make such a change? “It’s about sustainability. You can’t put all your eggs in one basket. That big steer that wins the championship at the state fair is not good.” It means changing the kind of animal, she explained. Before moving to more sustainable, organic practices fifteen years ago, Don raised hogs in confinement and had a large herd of cattle. He didn’t enjoy the smell and the challenges of raising intensive livestock in a small area, so he got rid of his hogs and cut the size of his herd of cattle, making the transition to 100% grass-fed beef. Don says that now he believes allowing his cattle to graze rather than be fed on corn is better for the cattle, for people, and for the land. He feels called to promote the health benefits of grass-fed beef as well and works hard to share his knowledge with other producers. “I think we make a difference. I think we can have an impact on the industry and I think it has had an impact on the industry,” Don says. “When the doctor says you shouldn’t eat beef, it’s because of the fatty acids in corn-fed beef,” Don explains. “The fatty acids in grass-fed beef are different from corn-fed” (Double D web site <http://www.foodalliance.org/certification/certified/profiles/mw/doublednaturalmeats.pdf>).

Today Bev and Don farm 300 acres, plus they rent 80 acres of alfalfa with a production of 200-400 bales (the hay crop did decline last year). They are organically certified for alfalfa/forage production. They lack equipment for rotations, however. They own a portion of the animals on the farm, their son owns a portion, the Double D partnership owns another portion, and an individual from Willmar keeps 75 cows of his own and 75 cows of his father on the ranch. In a type of share-cropping arrangement, Bev and Don get half of the calves born. The cattle are raised organically without antibiotics, but are not certified. Underground water and an energy-free fountain make their production sustainable and the animals provide self-fertilization. Bev and Don are Regional Midwest Food Alliance certified, meaning the animals they buy are raised sustainably and humanely. They sell to Thousand Hills Cattle Company in Canon Falls (in Eastern Minnesota) at a guaranteed price. That company picks up the cattle and in turn sells to restaurants, demonstrating the economic synergy of family ranching with stimulus to the regional economy. Moreover, they also sell to local grocers, such as Bergen’s Prairie Market in Milan, and can sell meat by the package or by the quarter, with processing at a USDA approved plant in Milltona. It is important to stress that food establishments such as restaurants can not purchase direct from farmers; they must purchase it from a USDA certified meat processor. One drawback of promoting farm to institution (schools, hospitals, etc.) sales is that the animal must then be sold whole. Bev and Don do purchase one bull per year from the Colorado Feral Cattle Company in South Dakota. They also have eight goats; Hispanics from Milan or Montevideo occasionally drive by, see them, and purchase a whole animal.

An issue repeatedly raised during interviews was that of price. Do organic, sustainable, locally-produced foods create a market too pricey for the average consumer? When Bev and Don set their own prices, they compare prices: “With Cub foods our prices are definitely in the ball park.” Quarters cost \$2 per pound, plus processing, about the same as if they were to sell to Thousand Hills. What is missing from the data, and I was unable to obtain from any farmers, was a comparison of costs and prices of conventional farming with those of sustainable farming. Such data would bolster arguments in support of organic farming.

What are their challenges in operating this sustainable farm? Finances are always an issue. Financial institutions, however, are beginning to understand alternatives. These include United Prairie Bank in Madison, the Credit Union in Dawson, and Prairie Sun Bank in Milan. Working with these institutions could foster more opportunities for sustainable, local production. On the farm, Bev does the bookkeeping and Don makes operational decisions regarding the farm. Bev clarified that one strategy to increase local supply of meat would be for big farmers to get tax incentives for selling small amounts of land to farmers.

In addition to running the farm, Bev was a member of the West Central Regional Partnership for six years, is still Community Education director for Milan, and runs food preservation workshops. Having established a community kitchen in the local school that closed two years ago, the kitchen has liability coverage for processing food, and Bev indicated an interest in partnering with others. The one restriction is that food processed there can not be sold, but it can be used for community events.

J&L Ranch is a 200-acre bison ranch operated by John and Leila (“Lea”) Arndt near Willmar. When asked how they began the ranch, Leila reflected, “It wasn’t in life’s plan.” She was a legal secretary and John was a teacher for 34 years. They started the farm in 1972. John had always wanted to raise buffalo, which they began to do about 20 years ago. When John and Leila started their farm, they had to present their plan to the County Commissioner. They were required to notify all farmers within a 25 mile radius. There was an inspection on their farm and John complained that not even half of the inspectors were even farmers. They attended the first national convention of buffalo raisers and began the Minnesota Buffalo Association, working very hard to educate with the aid of Ridgewater College students. There are 25-35 farmers in the bison marketing group but that is decreasing due to feed costs. Dr. Marchello did an evaluation of bison meat and guided them forward based on nutritional benefits of bison meat. Bison meat is leaner than beef, turkey, and chicken, making it healthier by reducing the risk of heart disease. After 18 years of education raising buffalo has finally caught on. Minnesota has 70 buffalo farms. The Arndts are also members of Pride of the Prairie and Leila is on the Farm to School Committee and Chamber of Commerce Agricultural Committee.



Buffalo are weaned May1 to November 1, so that is when school children tour the ranch. They had 53 children visit the ranch and sample buffalo hot dogs. In August, 2007, 70 YMCA children visited. The Wyzetta school district ordered 2000 bison hot dogs. The Arndts provide bison meat to the school only in May, although they could do it more often if they were given advance notice. These efforts to provide school children with healthier meat are apparent in data taken from the J&L Ranch web site:

Bison Nutritional Information (Research conducted by independent producer and laboratory - 1988)			
3 oz. serving	Calories	Fat	Cholesterol
Bison*	93	1.8g	43mg
Turkey	125	3.0g	59mg
Beef	183	8.7g	55mg
Chicken	140	3.0g	73mg
American Heart Association Recommendations:	177	7.7g	77mg

*Bison are fed a corn ration for 90 days prior to processing
(source: <http://www.jlbison.com/recipes.html>)

One obstacle to bison ranching is the high cost of land—\$200 per acre for pasture. On their own ranch they rotate pastures and have 275 head of buffalo. John Arndt really stressed the exorbitant cost of feed and how very difficult the rising cost was for farmers. Another farmer could not afford feed for his buffalo so the Arndts took the buffalo on their own farm. Buffalo will not eat alfalfa (it is too rich and gives them diarrhea) and prefer rougher grasses. Before, they used to put the bison in their own feedlot for 90 days and fed them hay. But Minnesota's cold winters make raising grass-fed bison difficult. John and Lea do not feed their buffalo corn, except for 90 days per year. Grain can be obtained from ethanol plants and elevators, but it is the production of ethanol that greatly contributed to rising costs of corn. The experience of these local farmers diverges markedly from the large feedlots operated by corporations who were able to attain \$35 billion in indirect subsidies by purchasing feed crops at 20-25% below production costs (Olson 2008). The Arndt's biggest challenge is the fluctuation in the economy. They experienced a high 5-6 years ago, but now, while meat prices are good, feed costs \$20-30 more per bag. Oats have to be fertilized—an additional cost. They use beans to increase protein and use feed residue in an attempt to feed at low cost. John said, "It all boils down to one thing—the economy. We're not in a casino, but it's a gamble. We can't produce the supply if the economy is so high. Our costs are out of sight." Because their costs are high, John said, "We're gonna have to scale back." Leila stressed that it was difficult to start their business when they retired—this was very late to get into it. They do not go out and sell for that reason—they have retirement income. If they were not retired, they could not make it economically. But yes, they would encourage others to enter.

The Arndts sell bison meat all year long. One animal produces 150 pounds per quarter and they butcher about two animals per month. They are butchered at federally inspected plants, such as Carlson Meats in Grove City. A processor in Miltna makes brats and hot dogs for the Minnesota Bison Marketing Association. The Arndts sell meat on site at the ranch; buffalo burgers generally sell for \$4.95 per pound, but they charge \$4.50 per pound. They furnish meat to Lucia's Restaurant in Minneapolis; the family delivers it to the Twin Cities. They also have some out-of-state customers. Marketing associations play an important role in marketing bison meat but have also faced obstacles. Kmart obtains its buffalo meat from Denver, but the North American Bison Cooperative was able to get the contract away from them. Cub Foods and Cashwise also buy buffalo meat, but their corporate offices make all of their food purchases. The Minnesota Bison Marketing Association has a salesman who tries to sell the buffalo meat direct by eliminating middlemen, but "Cub doesn't want to deal with

us. We couldn't furnish enough for 40 to 50 chain stores." This salesman makes presentations, but has not had success at groceries; however, they do well selling to restaurants. The American Legion, Kandi Cupboard, and a cooperative in St. Cloud also buy their bison burgers.

Moonstone Farm, operated by Richard Handeen and Audrey Arner in Montevideo, offers a successful example of a local, sustainable farm. Richard's great-grandparents, Johan and Johanna (Karlsdatter) Handeen, emigrated from Sweden in 1872 and began homesteading the farm. Richard and Audrey practice holistic management, using a permaculture design, to support a sustainable community. They raise 90 head of grass-fed cattle, alfalfa for forage, wine grapes, and maintain diversity through preservation of wooded cover on their 240 acres. It is important to note that their farm not only provides local, sustainably-produced beef to the region, but they supply three restaurants, Java River Café, Café Barbette, and Bryant-Lake Bowl. What must be considered here is the support of a number of local businesses, all of which enrich the local economy. All of these restaurants purchase and offer locally-produced food; Java River Café's web site clarifies its contribution to economy, sustainability and local culture:

"Our goal is to stimulate the rebirth of a new economy based on locally produced quality foods and creative cultural expression. We are the only café in the region that regularly serves anti-biotic free, pasture raised meats, poultry and organic vegetables. Shade grown, fresh roasted Free Trade coffees, homemade pies and desserts and friendly welcoming atmosphere are the hallmarks of Java River" (Java River Café 2008).



Richard and Audrey also sell direct to consumers, at farmers' markets, and are part of regional network of farmers who help each other in distribution of their products. Easy Bean Farm (see below) distributes Moonstone's meat weekly in Easy Bean's refrigerated truck. An important consideration is profitability for local farmers. Richard, a member of the Sustainable Farmers Association, explained that while "conventional" agriculture may have other kinds of efficiencies, his input costs did not demand extra cash. He stressed the growing, trusting consumer base and 20% per annum growth in the market for organic products. Nonetheless, an important task for continuing the Kandiyohi

County Local Food System project will be to acquire specific data on costs, expenses, and potential profits that local, sustainable farmers can achieve. Such data can facilitate grant applications for further development.

Equally important is the knowledge and philosophy that undergird Richard and Audrey's farming practices. Richard's story illustrates the significant changes since his grandparents' day, the appearance of tractors in the mid-1950s, and his father's agricultural education at the University of Minnesota, a benefit he received in the 1950s from the GI bill. A portion of Richard's story will illustrate how this philosophy promotes sustainable farming and economically viable local production:

My father raised corn and soy—the model of the day—and used fertilizers and herbicides. It was the scientific way to go. He bought a 1951 Ford tractor with a two-

bottom plow to work his 200 acres of corn, soy, and alfalfa. There was a good market and corn and soy have complementary nutrients. When I was growing up, my father had cattle and was glad to be free of them. Being a row crop farmer today is very attractive—you can hire the tilling done, harvest it, and the rest of the year is free. My father began to inoculate the soy seed using live rhizobium culture mixed with water and adhesive (such as clay). He would stir up batches of soy seed and the powder before planting. Corn and soy require different equipment since soy can be planted in narrow rows and corn requires wider rows. So later he alternated the corn and soy between two farms that were 15 miles apart so he did not have to move equipment back and forth between farms.

I returned from Macalester College, and no-till farming entered about in the 1970s. With normal farming, you plow in fall, then disc in spring. Farmers used a no-till planter to plant Roundup Ready seed. With no-till, a residue is left after the harvest. In the winter you don't have to plow. I have rolling land, so I plant on the contour. We began to use ridge-till farming, with a planter that shaves off only the dirt ridge in the spring. The ridge tiller does move the residue slightly out of the way. This process also prevents weed growth to a degree—since the previous year's silage is left on the field. I began to raise cattle 16 years ago. I wanted to market organic soy and feed corn. I am not certified (I was for three years). As marketing became more direct, certification was less necessary. Certification would be more important *if* I marketed to a grocery store. I am certified by the Food Alliance, which is based on best management practices: no GMOs or chemical fertilizer (although there are situational exemptions), and worker safety.

When he shifted to organic production, Richard's father asked him, "Why would you want to go backwards?" Since many see this as a forward move, I asked Richard why he decided to change to organic:

As a youth trying to understand my position in life I studied religion, took classes in philosophy and anthropology. I asked "How do we understand ourselves better?" and got into meditation. We are what we eat, believe, and experience. I began to examine what I was eating, how that made me feel, how health is a part of that. I asked about fasting—"What does it do? How does it feel?" I asked *if* we are willing to eat other sentient beings "What does that make you feel like?" I got involved in the cooperative movement. I developed awareness—let's take responsibility for our foods. I began to question what I'd previously accepted. To have an alternate view is a bit unsettling and I explored it. There's a wide spectrum of understanding about what our reality is. I do see our choices being influenced by all kinds of forces...not just believing that what is handed to us is safe. Coming back to farm I wanted to experiment with organic methods. We can work with the natural system and not control it. I experimented with three acres.

Eartrise Farm in Madison, run by the Catholic sisters Kay and Annette Fernholz, is a model for local, sustainable, community-oriented farming. Known for its mission of "radical hospitality," Eartrise Farm is non-profit and fosters a strong educational component. Kay pulled out two scrapbook albums to share with us. Kay is quite an amazing woman, passionate, intelligent, committed to success, poetic, and even sang for us! Each page of her album was filled with photos documenting the sisters' lives and efforts to start the CSA



(Community Supported Agriculture). She had carefully inscribed beautifully written prose verse to accompany each photo. Kay explained that religion plays a very big role in her philosophy, but she clearly envisions Wendell Berry's (see Berry 1977) connection to nature.

Kay and Annette Fernholz, both of whom belonged to the Sisters of Notre Dame Convent for 40 years, established Earthrise Farm in 1996 on the 240 acre family farm purchased by their parents, Armond and Gertie Fernholz, in 1944. Inspired by the words of an astronaut during the first moon landing, "We have seen the splendor of Earth rise above the horizon of the moon," Kay and Annette see their farm as representing a new paradigm. A four-acre portion of the farm has developed into a community supported garden (CSA) and the rest of the farm is under organic production by their brothers, Carmen, Chuck and Tom.

A historical perspective on how farm management changes over time is instructive in revealing the possibilities for creating local sustainable farming systems. Kay and Annette's father was not an organic farmer. He was not adverse to organic farming, but did not think he could make it going organic. When he used a chisel plow, the neighbors laughed at him. He grew barley, oats, wheat, and corn, plus some soy, then shifted into monoculture—"He was into DDT," Kay remembered. "He read and read—way back then there was a magazine "Organic Farming." In the 1940-50s, "His heart just about broke when Orin L. Staley was president of NFO." Farmers weren't getting just prices anymore. Then gradually, more land went into the hands of fewer people. The reason we started doing this was because of the food system—it's done on such a big scale [now]. It definitely doesn't get the care." Kay had taken classes from the Benedictines and worked with the National Farmers' Organization, with a firm belief in justice at the marketplace and in collective bargaining. Her commitment is to "Farming with the farmer's face on it."



At first, the Fernholz sisters put an ad in the paper for a farm house and moved into a rented farmhouse on August 6, 1995. Kay showed photos of the bare-bones house that had no appliances; their brother gave them used ones. "We didn't have anything hardly. We didn't even have furniture," she said laughing. "The more you can be inventive—it's amazing what you can put together." A photo of a family birthday celebration when her parents were 80 and 85 showed everyone sitting on the floor for lack of furniture. "It was like we became a place for the family to gather. That first year we were just getting acquainted with the whole community."

Both sisters had off-farm jobs. Annette did home health care assistance and Kay worked for respite, helping with dietary needs for the hospital. Kay has an M.A. in pastoral ministry and does guest preaching, even at the Lutheran church! They saved their money to buy seed. Kay proudly showed photos of them bringing home boxes of seeds purchased by mail order from Guney's. They hauled the boxes home in the snow, wrapped in scarves, "We could continue to think spring. Our excitement and eagerness for planting those seeds was mounting." The sisters planted their seeds in numerous pots in their house where they

started the plants. “We gave Mother Earth a bit of a head start,” Kay reflected. To attract subscribers to their CSA, they placed a newspaper advertisement: “Just for you – Too busy, too old, too young to grow your own garden, but crave home grown, drug free vegetables? We may have an idea to offer. Please call as soon as possible for further information.” They had seven shareholders who paid \$200 per share; a share feeds four people. Today shares are \$460 for 20 weeks or \$360 for half shares. While expensive for some, Earthrise still assists people in need. For example, one individual who is very poor contributes vegetables to Earthrise to pay part of her share. The CSA concept is that shareholders enter into the garden. There has also been reciprocity the other way; a neighbor with an empty house offered it for Earthrise’s interns to live in for free. Share members live in Appleton, Ortonville, Montevideo, and they have a pickup point in Madison. Earthrise also sells produce at the Montevideo farmers’ market. Some people come out to the farm to buy, but of course this gives Kay and Annette less ability to adjust supply to demand. They keep track of what is selling and what is not, then adjust crops accordingly: “That’s the challenge; That’s why the CSA is such a wonderful market—it’s a great market.” To alleviate rising transportation costs, Earthrise has shared arrangements with Garden Goddess Greenhouse and in turn provides storage space for the greenhouse.

Their very first printed brochure to advertise the garden read: “Thank you for sharing the risks and rewards of growing and enjoying fresh produce that matches the need for diversity in a healthy diet and a partnership with our Mother Earth.” The first year they raised potatoes, radishes, beets, carrots, peas, cabbage, and broccoli. They didn’t even have money to purchase boxes for shareholders, so they got them from the hospital where Kay worked. Previously, industrial crops had been raised on the farm and sprayed with chemicals. The next year, they had weeds, but after three years they were completely chemical free. It takes three years to become organically certified. Across the road from Earthrise, their neighbors are “heavy into chemicals.” They created a 30 foot bush and tree buffer to prevent chemical drift. Canadian Thistle infestation is a problem, but alfalfa has deep roots and competes with thistle, so they planted alfalfa on 65 acres. Alfalfa also taps minerals that are deep in soil and brings them up to the surface, making them available for the vegetables. When it is cut, the minerals go into the soil. Their brother gets four cuttings per season and sells it as chemical-free fodder: “Livestock breeders are just thrilled.” Two other brothers are organically certified. The market price for grain is way above the regular market so Carmen grows flax and sells organic golden flax, with the label “A Frame Farm.” He signs contracts before the season begins and ships it around the world using the internet. Local demand, however, is growing and heart doctors are prescribing it. Earthrise Farm has its bread baked at Kennedy Bakery, a private bakery in Madison. Unfortunately, the organic labels can no longer be used since when Dry Weather Creek Farm ceased to produce organic flour, their source dried up as well. Should that farm reopen, they can again access organic flour. Kay asserted, “We want to support our [local] businesses.”



Earthrise Farm is organic, but not certified. No chemicals are used on Earthrise’s vegetables. Some vegetables are covered with plastic to minimize weed growth. They use IPM

(integrated pest management), but do not introduce predator species to control pests. They use “pyganic” chrysanthemums, flowers, and BT (*Bacillus thuringiensis*) as repellants. They only have a very small compost pile, and mostly use green manure by chopping up vegetation and tilling it into the soil. Buckwheat grows fast, pushes out weeds, and is used for green manure. But if it goes to seed, it grows uncontrollably, so has to be harvested promptly. They obtain turkey manure from an Appleton farmer, but since it is not organic, they let it sit for two years.

Earthrise’s most popular market products are: beets, kohlrabi, carrots, romaine lettuce, spinach, green beans, peas, asparagus, strawberries, broccoli, cauliflower, and especially, tomatoes. They have a variety of onions, which are easy to store. Kale and Swiss chard do not sell well since people don’t know what to do with it. Kay explained, “We try to educate them” and the CSA newsletter includes recipes. Earthrise Farm also boasts of a greenhouse (built in 1999) used for transplants, a canning kitchen and food preparation area for visitors and workers, and a poultry co-op for raising organic and free-range broilers as well as eggs high in Omega 3 (known to help people with high cholesterol, high blood pressure, arthritis, psoriasis, eczema and cancer). Their eggs sell for \$2.50 per dozen. The poultry co-op was supported by the Southwest Research and Outreach Center.

How do they make connections with other farmers and local businesses? “You just keep putting those little bits of information and that does wonders.” The bakery, for example, buys their eggs. Dawson poultry co-op brings their eggs here. Jubilee Store in Madison and Madison County Market sell their eggs. But competition can be a problem; this winter Annette took eggs to the County Market and they couldn’t sell them because Walmart had just moved in. In response, Kay wrote an article for the newspaper—not criticizing Walmart, but explaining their predicament—and received many responses. She received a phone call from Valentino’s Restaurant in Montevideo, who ordered 30-35 dozen eggs per week! Valentino’s put a sign in their restaurant “Fresh Omega 3 eggs from Earthrise Farm.” Kay reflected, “I can’t stress enough—it’s how you work with each other and how you connect with your neighbor. We don’t want the rural to die.” It is very important to take note of their strategies for creating networks among local businesses and farmers to ensure continued success.

Earthrise Farm makes great efforts to educate the public. The intern program provides training in raising organic produce. School groups of 20 children also visit the farm weekly. There are plans in place to integrate education on healthy food production into the mandatory continuing education program for teachers. Kay affirmed that Minnesota and Kentucky are on the cutting edge of this. When asked about selling direct to schools, she replied, “We don’t even want to get involved with that mess! If you figure out how that works, let us know!” Earthrise will be working with Lynn Mader: “That’s something we definitely should be doing.”

With so much success, what obstacles does a farm like Earthrise face? Kay responded, “Who carries on? And it can be fearful.” Unlike Garden Goddess Greenhouse and Easy Bean Farm, Earthrise has no waiting list. The reason for this is unknown, however, proximity to larger towns may be a factor and the greenhouse has vegetables in winter, which helps. Earthrise Farm has 33 shareholders but they want to increase this to 50 shareholders next year. To do this, they need to advertise more. Economically, “We’re skimming along, it’s very tight. Right now we just kind of break even, but if I die, I’ll feel that I’ve done what’s right.” The Earthrise sisters want to do more staffing of the CSA; they currently had a

production manager and two or three interns. They depend on fundraisers and are applying for grants. Cecilia Alvarez in Montevideo helps with grants on entrepreneurial projects and took on Earthrise as a client. She helps to get the name out and “now we link with each other. So you see how we’re helping each other?” This could also be a potential source of grant aid for other projects in the Kandiyohi region.

I asked Kay what lessons she had learned. She pointed out three of them:

1. “An extrovert always thinks out loud. I don’t think I’ve ever had as good a professor in my life as Mother Earth and I don’t think I’ve been as fond of a teacher as her. We say it so glibly. I go to that garden of seeds and feel like I’ve just put on a banquet, and worked and worked, and say ‘Thank you for what you gave us this year.’”
2. Patience: The process is more important than the product.
3. Knowing weather patterns and how to fit into it. How do I get into the dance and step with it?

Easy Bean Farm in Milan is also an organic, sustainable CSA farm, employs interns as part of its educational outreach, but is more business-oriented than Earthrise. Michael Jacobs and Malena Arner Handeen own the farm. Michael, beginning in 1996, rented this farm for three years. The owner was a friend who was very supportive and charged very little rent. When Michael purchased the farm, he had saved \$10,000 for the down payment and paid \$62,000 for 120 acres and the house. The cost range for a similar farm now would be \$160,000-180,000. Although it is significantly harder to buy a farm now, banks are more sensitive, he said. Yet Michael explained, “What we’re doing doesn’t register on their radar.” Easy Bean, like the majority of local, sustainable farms, produces organic food without certification. It was certified from 1997-2001, but is no longer.

Michael was already practicing organic gardening when he rented the farm and had worked in food coops in Minneapolis and New Jersey. Through this experience, “The connection was made between farming and organic.” Easy Bean Farm is founded on a belief in the need for localized food systems and economies, and the desire to provide our community with the freshest, most nutritious produce at a fair, reasonable price. Characteristic of the diversity on organic farms, he produces 85 different crops, most of it vegetables, on the 120 acres of prairie, woodland, pasture, and cropland. As the owners state, “The profitability of our farm is measured as much by the quality of the water, the health of the soil, and the diversity of its ecosystem, as by the dollars it brings us. As we farm it is our goal to produce agricultural systems that are as stable and diverse as the natural ecosystem they replace” (from the web site <http://www.attrainternships.ncat.org/internDetail2.asp?id=349>).

Last year crops were produced on 16 acres, but they cut back to 12-13 acres this year in order to save water and cut the significant cost to pump water from the well and streams. This required intensifying the area by tightening the spacing of rows, yet they can produce the same amount of crops. The yield per square foot is higher, plant yield only slightly lower. There are also chickens on the farm and 40 acres of pasture that are rented out for organic grazing to the Struxness’ Double D farm. Easy Bean also has four greenhouses that are used for transplants. A chicken farm run by Mennonites in Detroit Lake supplies them with compost—Michael knows of no other place to get it. He buys it every two years and uses 10 tons per acre. Composting can cause problems with flies, so they did a demonstration project comparing aerobic and anaerobic compost—the former is “hot composting.” There is a potting mix (blend) that is lighter that they get from Southeast Minnesota for their

transplants. They compost their own waste, but it is not even enough to fill a manure spreader. They did their own composting on eight acres until several years ago, but encountered two problems: 1) no equipment to move the compost; 2) USDA organic standards changed—it now requires more turning of the compost pile. The hotter the compost, the safer, and it needs to reach a certain temperature (which is measured). Easy Bean is not subject to regulations, but if they processed any of their food, then they would have to comply with state and USDA regulations.

There are 250 members with shares in the CSA; 40 of these are located in Western Minnesota and 20% of what they market stays in Western Minnesota. The rest are in the Twin Cities where Michael makes deliveries each Friday. Michael explained, “That’s what subsidizes our staff out here.” Members pay \$475 in the metro area, and \$440 locally. CSA members get a new recipe every week in their weekly newsletter. Michael explained they do not do direct sales. CSA members pay in advance, so the harvest belongs to them: “Really, my members own my crop.” Michael does all the delivering to drop sites: Pomme de Terre Food Coop in Morris, the Java River Cafe in Montevideo, and to homes in Willmar, plus he makes weekly trips to the Twin Cities. This CSA had sales of \$106,000 gross this year, plus \$4,000-5,000 for tomatoes that Michael sells wholesale to restaurants and co-ops. To sell to restaurants, he said, “I seek them out, I have enough connections now and know the chefs in the Twin Cities. Like other farms, Easy Bean also markets products from other farms who are customers in the CSA (e.g., eggs from Earthrise Farm in Madison, Strawberries from Coyote Ridge Farm in Kerkhoven, and previously, flour from Dry Weather Creek Farm.

One charge often leveled at organic farming is that it is elitist and fails to serve the needs of lower-income families. Easy Bean does indeed market to upper middle class households with disposable income to pay the share fee upfront. Michael is concerned about those with limited incomes and worked with ESN (an emergency food network). Some CSA members purchase food to donate to the ESN, then the farm sells to them at a discount.

A factor that should be considered when promoting farm to market sales concerns volume. Michael does not deliver to one Montevideo grocery store—Bill’s Supermarket—even though that store purchases a lot of local foods. The quantities Bill’s wanted were too low. The delivery charge to restaurants and groceries is for a \$350 minimum order for wholesale. Thus, a \$40 order is not justified. A farmers’ distribution or marketing association is supported by this assessment and the several farms documented in the report have created informal networks to sell each others’ products and mutually assist each other in deliveries. Michael, for example, delivers meat for Moonstone farm, claiming, “I’ve already made the delivery worthwhile. What’s important is networking between people who always worked together.” There is a downside to such networks. He also said, “So far my experience with anything formalized is not good. Everybody likes the idea until you have to look at the numbers and make it work. You could plot all the routes on a map and if there were a group that coordinated delivery—but it doesn’t make sense to have one delivery, if one only wanted \$30 worth of produce delivered, it wouldn’t work. If there are two unknown variables and new people enter, then you have seven unknown variables. A distribution network might work if someone could work out a good system. *Honestly, it would be great. I think it’s possible, the fuller the truck the better*” (emphasis added). Currently, Easy Bean’s deliveries are only two-thirds of capacity. Surprisingly, Michael confirmed that “Transport for us is a small part of our budget.” They spend \$180 per week in fuel for a period of 18 weeks, or a total of \$3,240.

Given high gas prices, they spent \$2000 more this year than last. They also have other fuel bills, including costs for heating greenhouses, but labor is their highest cost.

Michael opined, “The thing that’s getting in the way is education.” For that reason, internships at Easy Bean Farm provide labor and excellent educational benefits. Internships run from April to October and they can take on six interns for a period of two months each. Interns earn \$450 per month, plus room and board. They are housed on the farm and share meal preparation in a communal kitchen. Thus they learn not only organic agricultural skills (planting, mechanical and hand cultivation, biological insect control, companion cropping, cover-cropping strategies, harvest/post-harvest handling, and marketing through the CSA model), but home cooking and healthy meal preparation as well. The educational benefits for organic farm interns should not be overlooked. Easy Bean also has a field manager on salary and hires labor two days per week; interns are cheaper than paid labor.

Asked if he considered supporting schools, Michael explained that he worked with Sodexo at UMM but for only one or two meals per year. That, he said, was more trouble than it was worth—it was too irregular. *If* it were regular, he would be interested in supplying a school. When schools do buy, it is in the farm’s off-season so it would need to be storable foods (potatoes, etc). He would have to add storage infrastructure to do that. He would also need stability in his relationship to Sodexo: “The honest truth, I support the idea. I’m already well established now. It has to be low risk.” Could he supply the Willmar schools? “I always love the idea. **Right now there’s just not enough people growing stuff.**” During the winter he has volunteered at his children’s’ schools and worked with juvenile delinquents—one even served as an intern. Engaging troubled youth in agricultural intern opportunities is highly recommended. It should be particularly noted that there is interest in supporting schools with local foods. The steps necessary to make it happen (regularity, more supply, and appropriate infrastructure) are still lacking. A serious effort to promote the local food system will take seriously these suggestions from local farmers.

Is this organic farm self-sustaining? The owners supplement their farm income through other economic activities; Malena is an artist and Michael does carpentry. “For us it’s good. It’s a great quality of life for us.” They will earn \$51,000 net on the farm this year. The farm is paid for and they have no debt.

In terms of future direction, Michael plans to expand the CSA with 275 members next year, then 300 the following year. He could easily supply that number. He currently turns away 10-15 applicants for shares each year, although he had the same number of members for three years. Even so, he claimed, the room for growth is pretty saturated—a new CSA opened and lacked members, so it folded. Yet he sees potential to improve the local food system in that land values here are cheaper than in the cities, the cost of living cheaper, and insurance and taxes are lower, which makes up for extra fuel costs of living in rural West Central Minnesota.

At every farm visited, it was difficult to obtain comparative data for costs and profits of organic vs. conventional agriculture. This is a gap in our knowledge and comparative data should be sought by working with various types of farmers to collect this important information. Michael informed that Wes Jackson, author of *New Roots for Agriculture*, would have such data, but the LSP and IATP should also be able to fill in this gap. Some suggestions regarding differences, however, were offered. Easy Bean farm can make \$106,000 on 10 acres of land

(\$10,600 per acre). A commodity crop such as corn produces 110 bushels per acre, at \$6 per bushel (\$660). Data would have to be collected on costs that go into production, offsets for subsidies, etc. Subsidies now go to sugar beets, corn, soy, and wheat, but not to local food crops.

Garden Goddess Greenhouse serves as an exemplary effort of community supported agriculture. Whereas other forms of agriculture are seasonal, greenhouses make local foods available year-round. Much interest was shown in learning more about greenhouse production when Bob Palmer gave a presentation on the YES greenhouse at the Ken Meter public presentation in July, 2008. It is worthwhile then to explore the Garden Goddess greenhouse operated by Chuck Waibel and Carol Ford in Milan. The success of this effort calls for support to build additional greenhouses in the region.



Chuck explained how he and Carol got into the greenhouse business: "In 2003 we were getting summer vegetables from Easy Bean. That fall we realized that we'd have to go back to buying 'crappy supermarket vegetables.' 'Somebody should do something,' became 'We should do something.'" It is this community spirit that drives local food systems. Carol commented on the inferior selection of vegetables at grocery stores, as opposed to the local bounty they enjoyed from Easy Bean Farm during the summers. Carol turned to Amy Bacigalupo at the Land Stewardship Project after which Carol and Chuck enrolled in the Farm Beginnings course. That course provided a structure for them to do research, accounting, and prepare a business plan to approach lenders for the capital needed to build the passive solar structure that Chuck designed.

Carol conducted surveys with coworkers and friends, ran a cost-benefit analysis, and obtained a loan to cover startup costs. Those surveyed signed letters of intent—with absolutely no advertising—which were shown to the lender. It took Chuck and Carol two years of research, with Carol specializing in horticulture and Chuck in engineering. After being turned down by a couple of local banks, Carol approached a loan officer at the credit union in Dawson, where she was given a seven-year farm loan for \$18,000 (the costs would be less for someone with carpentry skills). The yearly payment is due in early December, when all the share payments have come in. They want to expand and would need a facility five times the size of their greenhouse to make a living on the greenhouse alone. While greenhouses may not create many new jobs beyond the owners, they do stimulate local economies.

Chuck and Carol had the broader community in mind when they decided their greenhouse project must be replicable, off the shelf, and simple. It was meant to be a prototype, a "Demonstration of Principle." Indeed, Chuck worked with Bob Palmer in designing the Willmar Community YES Greenhouse and he and Carol are publishing a forthcoming book as a model for others. Carol commented, "It was very hard during the Farm Beginnings work to come up with numbers to crunch, since we were the first ones doing this sort of thing. Ultimately, I had to do a lot of research and make my best guess. That's one of the reasons we are writing a book about our experience. I recognize that this task of pulling numbers out of the air to form a convincing business plan would intimidate some potential entrepreneurs so I want to share our experience and encourage them to take advantage of the strong

consumer demand for this superior product.” There is greater need for greenhouses in the area. The Willmar Community YES Greenhouse provides peppers, tomatoes, and lettuce to the schools from February to May, but additional greenhouses could offer greater volume.

Currently, 18 families subscribe to their CSA and they receive 11 shares per week, making the business self-supporting. Demand is greater than supply, for they have a very long waiting list (triple what they can provide), indicative of the fact that more greenhouses are needed. They did plan to add one new member. The demand is further indicated by local grocers who have urged them to build a larger unit so that they could purchase from Garden Goddess. With minimal marketing, they could sell much larger volume. Chuck admonished, “Think outside the ‘Farmers’ Market Box.” With a dependable source, many grocers and institutions are interested in buying local produce. Carol explained, “I’ve never had to spend a dime on advertising. There are many untapped markets in our area for this local produce including area grocery stores, institutions, and restaurants. There is no doubt in my mind that when someone tastes the incredible greens we can provide in winter, they will want more and will gladly pay the price for this premium product.” Members pay \$450 per year, or \$18.75 per week, which is much less than the equivalent organic vegetables in a supermarket. Share boxes are about 15-20 pounds. But they also get superior nutrition, make a lower carbon footprint, and contribute to a local economic multiplier factor. As Chuck summed up, “This system is definitely economically valid.” Carol further stressed the significance of supporting the entry of new farmers: “We need incentives for growers to wade into this exciting market and start meeting the supply need. We are a long ways off from having to worry about saturating this market. I want other producers to catch the fever and find out how much fun it is to grow food in the winter in Minnesota. People love you for it!”

Garden Goddess Greenhouse produce is organic, but not certified because “People are more concerned about local than organic.” In the summer, they grow crops for fall harvest and winter storage, including leeks, onions, celeriac, rutabagas, turnips, beets, chard, kale, collards, brussel sprouts, kohlrabi, broccoli, cabbage, garlic, winter radishes, sun chokes, salsify, scrozonera, parsnips, carrots, winter squash, and gobo (Japanese burdock). Because they do not have enough land to grow all the vegetables they need, they purchase potatoes, carrots, and onions from other CSAs. Frozen produce for distribution in January and February, such as heirloom tomatoes, peppers, green beans, and broccoli can also be included in shares. Beginning in early September, they start transplants for the winter greenhouse, where they grow broccoli, Chinese cabbage, pac choi, radishes, chard, and kale in raised beds. Sections of plastic rain gutter are filled with soil mix where 18 varieties of greens are planted. Each planting provides 3-5 harvests, depending on variety and day length. Any remains are dumped into a compost bin. Carol pointed out that the trick to top production is knowledge of which varieties perform best at the different times of the winter season and advice on this is included in the forthcoming book. Of course all of this is labor intensive, with the heaviest labor input from October to early December and it then drops off to 6-8 hours per week from December to April when all production moves indoors. Carol explained that their greatest need is capital and a good storage facility for root crops. She added, “A shared facility used by other farmers that could also include the ability to freeze product would pretty much be a dream come true.”

Deliveries are made weekly for 24 weeks between mid-October and mid-April. Of course transporting vegetables is an issue, but since Carol works at UMM and Chuck works in Montevideo, they harvest on Thursday nights and Carol delivers to Morris and Chuck delivers

to Montevideo, as well as a pick-up site at Bergen's Prairie Market in Milan on Fridays. Carol includes the Pomme de Terre Food Co-op in her schedule and some deliveries are made to individual homes. A fact that became clear in interviewing at a variety of farms is that they mutually support each other. Garden Goddess subscribers can get bread and eggs from Earthrise Farm in Madison, via an arrangement with Garden Goddess. Chuck and Carol occasionally purchase produce from other growers to add variety to their own shares. Different local farm operators often purchase shares from other CSAs (Carol, for example, has been a shareholder in Easy Bean Farm since 1998), creating an interconnected market among farming units themselves.

Of course obstacles do present themselves. Communication and coordination are one of these, and effort must be made to make the various players aware of each other. As Chuck stated, "End users need dependable sourcing—NOW. Farmers need to plan production for years ahead. Helping each understand the needs of the other, and working out the 'fudge factors,' will be an involved process—but a do-able one. We all have an incentive as costs rise and the public is looking for better food." Two interns from UMM's Center for Small Towns helped them research multi-producer CSAs and distribution systems in 2007. They are discussing more intense joint distribution mechanisms with Rainbow Garden and Earthrise Farms. Chuck recommended rethinking how to cooperate to provide dependable, diverse sourcing. Working only with farmers is like the proverbial "herding cats." **Organizing and cooperating "is the only way to crack bigger, more lucrative markets, and to legitimize local foods to general consumers."** Chuck explained: "We know there's demand—how do you get market people talking to producing people? How do they know about each other? A lot of people know what they want, but they don't know who's got it. The people who do know will shift the whole culture."

The Dry Weather Creek Farm, which recently closed, illustrates the dramatic impact this organic farm had on the entire region. It appears that Mark Lange may be re-starting the 80 acre farm again, but this is not confirmed. As we interviewed at various farms, the mutual supportive networks (and loss of the same) became clear. Earthrise Farm depended on Dry Weather Creek's organic flour—a basic ingredient in their organic breads. Local merchants and grocers, such as Bergen's Prairie Market in Milan and Kandi Cupboard in Willmar, carried their products and sold both flour and breads from the farm. Bergen Standahl, owner of Bergen's remarked that it was a shame to lose the farm, as the owners had spent years obtaining their organic certification. Dry Weather Creek also raised goats—a local source of meat for ethnic and other populations.

Indeed, the owners completed the LSP's Farm Beginnings program and began breeding goats in 2001. After 12 does produced 17 kids, they obtained 60 more does from Heifer International, which offers a no-interest livestock loan program. Their markets included the Sioux Falls Stockyard and they began considering the Somali market. Next they began to produce and mill certified organic corn, wheat, and oats which proved to be in high demand. They then created a poultry cooperative and marketed eggs high in Omega-3 to local supermarkets and natural food stores. The farm provided one-half to two-thirds of the household income and off-farm labor supplemented that amount (DeVore n.d.).

Farmer Associations. Currently, there is more demand for local foods than can be met by supply in Kandiyohi County and surrounding areas. Institutions that currently do not seek out local foods are additionally hindered by absence of networks to connect them to local

farmers. For a school or hospital, for example, to locate local farmers, the foods they require, and in the amounts and according to their particular schedules, a system is needed that would stimulate local food production and bring together markets and farmers. One possible solution could be the creation of an association or cooperative of farmers who work together to distribute products collectively. Using a central data base on what products are available in what amounts, according to seasonality, markets and other institutions would be more inclined to purchase foods locally. Models for this kind of cooperative network are in place. Richard Handeen (Moonstone Farm) expressed interest in establishing such a network, stating that an organized distribution network would generate interest.

A farmer-driven distribution network would not be without obstacles. Terry VanDerPol at the Land Stewardship Project obtained a grant for a position to build a marketing network, but the project lasted only a few months, given difficulties of bringing farmers together. Farmers agreed on a set of standards, but few farmers attended the meetings and most of these were confined to the Montevideo area. Intersectoral competition came to pose a serious obstacle since LSP and the Sustainable Agriculture Association represent an alternative to mainstream agriculture. A secondary obstacle is the question of who would serve as intermediary between schools and farmers. Nonetheless, Lynn Mader believes that a workable farmers' distribution network will inevitably emerge.

Using the model of the Southeast Minnesota Food Network, food producers, processors and consumers in Kandiyohi County and its surrounding regions could create a network to accomplish cooperatively what they are unable to accomplish individually. The Southeast Minnesota Food Network is described as "a new marketing, sales, distribution and education collaborative that can change the way Southeast Minnesota purchases and consumes food." This network established a set of principles that can serve as a guide for West Central Minnesota:

- Farmers should receive a price for their product that is an accurate measure of their input cost and their labor.
- The best way to get fair prices is to sell products as directly as possible to the consumer.
- If farmers work together, they can offer sufficient supply to satisfy the consumers' needs on a consistent basis.
- Consumers should know where their foods come from, how it is produced and what the real costs of food production are.
- Creating relationships based on trust is the key to making our network system successful.
- Maintaining a commitment to sell only high quality food products is one of the elements that will assist in establishing this trust.
- We believe that sustainable food production is in the best interests of both the farmer and the consumer. The farmer should be following farming practices that build and enrich the soil so that, in years and generations to come, the land will continue to provide an abundance of good food and a profitable livelihood for those who care for it. The consumer should be assured that the food they purchase and consume is wholesome, nutritious and safe, and that it has been produced in a manner that contributes to clean water, healthy soil and the well-being of the farmers.

(source: Southeast Minnesota Food Network web site, <http://www.southeastmnfoodnetwork.com/>)

Community Gardens are another opportunity for increasing consumption of locally-produced foods. Willmar has three community gardens: at the Senior Community Center (known locally as the “High Avenue Garden”), the YMCA, and at 7th and Willmar streets. The senior citizens site began as a STEPS project supported by the city council and is overseen by master gardener Sandra Schlegal. It has 20 plots and participants are inter-generational, ranging from school children to senior citizens. The Land Stewardship Project supported the 7th and Willmar garden, which had 30 plots owned by a local citizen and rented out to gardeners. Plots were enlarged from 4’ X10’ and 4’ X 12’ to plots of 5’ X 15’ in area. A portion of this land was planted in soy in 2008 and no longer available for vegetable gardening. The YMCA has a large garden and integrates community gardening with nutrition education. Participants pay \$10 per year for use of plots and follow specific regulations. It became clear in discussing community gardens that members of ethnic communities need to be encouraged to participate. Members of the Latino community expressed interest in creating a community garden near the trailer court where it would be more accessible. This request needs to be supported by locating land and making it available. Overall, the community gardens are successful, but too few in number and/or size. Information about the gardens is available through newspaper articles, flyers, and word of mouth. More effort could be expended to make more people aware of the gardens. It is the conclusion of this assessment that community gardening can be vastly expanded by identifying potential backyard gardens and creating partnerships between families with available land and crop sharing with gardeners. This would also serve the important need to keep costs low.

Rhonda Wulf, Extension Educator, coordinates the master gardener program. Master gardeners take a 48-hour course, “Introduction to Horticulture,” at the University of Minnesota (there is a \$200 fee, but no college credit), after which they are required to volunteer 50 hours in a project that includes an educational component. This is followed up with five hours of continuing education and 25 hours of volunteer work each year. There are 38 active master gardeners and eight new people who entered last year. Better promotion of the master gardener program, development of mechanisms to connect master gardeners with beginning farmers, and fuller use of their skills to assist people involved with community gardens could promote local food production.

Farm to School. Lynn Mader, Local Foods Coordinator for the Farm to School program in Montevideo, explained the West Central Regional Partnership’s role in founding the local foods initiative in 2001 with a three-year grant of \$60,000 per year to raise awareness about local foods. At the time, Audrey Arner served as director of the Land Stewardship Project, and along with Terry VanDerPol and Lynn Mader, they worked with SODEXO in Morris to conduct a consumer survey with a focus on the Morris area. SODEXO is the world’s largest distributor of school lunches, but as Mader reflected, “They are half-way there,” but could buy more *local* food. SODEXO has not been successful buying from local farmers because it takes six months to pay the farmers who supply local foods. Donna Bauk at the UMM campus has made strides, but as Mader pointed out, significant pressure must be placed on educational institutions such as UMM to respond. Distribution poses a critical issue in supporting farm to school efforts and liability is a key in hampering such efforts. SODEXO expected farmers to have \$2 million in liability insurance so this was also a barrier. Educating schools and food distributors that locally-produced foods are generally safer than industrial commodities produced with herbicides, pesticides, and confinement of animals that increases the risk of disease-borne foods is essential. The UMM campus hosts one or two local foods events (community meals and local music at a cost of \$10 per person) per year and could do

much more. In the Willmar region, local restaurants could be encouraged to feature a weekly, local foods day, simultaneously increasing demand and educating the public.

The Farm to School Program of the West Central Partnership began in 2004 and has progressed by “baby steps,” according to Lynn Mader. The program incorporates a “3 C’s” framework—integration into the Classroom curriculum, Community education and experience through farm field trips and gardening, and offering local foods in school Cafeterias. In the Willmar Area School System, a local food is featured each month, and students are provided nutritional information, as well as involved in taste-testing. Appert’s in St. Cloud is a regional distributor; if there is a need for an item, local potatoes for example, then Appert’s will locate them. It is recommended that schools be encouraged to shift from monthly local food events to offer local foods on a weekly basis. The interest in farm to school is present, and the momentum is growing, however, **less than 1% of the food served at schools is local.** Moreover, the school district gets no salad ingredients from local farmers

In 2005, the Willmar school district featured locally grown apples, squash, turkey, and wild rice. Farmers visited kids in the school cafeterias and classrooms. Teachers were given information about the food so that they could re-enforce the message. Willmar’s food service director points out that consumption of fruits and vegetables is increasing, in part because of the enthusiasm created by these educational efforts. Willmar’s local food program has been aided by a grant-supported coordinator who identifies sources of produce from the Willmar area and handles related negotiations, planning, administration, and educational efforts, and who also serves as a resource person to help with communications and outreach.

(Annette Derouin, personal communication). This fact clarifies that an important effort of those involved in the Kandiyohi County Local Food System project should direct much effort to supporting local foods in the school system, since they educate students, parents, and support the local community of farmers, distributors, and consumers. With the exception of the high school greenhouse, despite availability of land, no schools have school gardens. A contingent effort requires implementation of school gardens, allowing students to grow food for their school lunches as they learn about the nutritional value of locally-grown, sustainable foods. Montevideo might be consulted as a resource since their schools implemented an Early Childhood Family Education (ECFE) program with state funding and involves parents as well. This program emphasizes connections to nature, placing it within a scientific paradigm.

While it is admirable to promote local foods in the schools, cost is an important barrier. Most school districts are limited to spending \$.15 on each serving of fruit and vegetables (Berkenkamp 2006). Large-scale distributors standardize and streamline procurement of foods from wholesalers and brokers, which according to Berkenkamp, “is best suited to the risk-averse and cost-conscious environment of most school districts” (2006:3). Economically, at each interchange within the system, profit is drawn off by non-local firms, thus not only would local procurement through a farmers’ distribution network or cooperative keep money flowing within the local economic system, but would curtail excessive transportation costs associated with large-scale distributors. Berkenkamp recommends that state-level USDA commodity programs procure local produce for schools. Here too, working with regional USDA offices to incorporate purchasing strategies beneficial to the local area would complement both state and community efforts to provide healthy meals to school children. It appears, though, that even local foods may have high costs involved; an invoice for 100

pounds of beans at a cost of \$35 carried FedEx shipping charges of \$28.12, plus \$12.00 for pick up, in addition to the cost of the beans.

Annette Derouin, Director of Food and Nutrition Services for the Willmar Area School District, reported that the district has a \$2.2 million annual food budget, out of a total budget of \$40 million. State and federal statutes allow them to re-channel funds from food service to custodial costs, utilities, etc. Of the \$2.2 million budget, only \$650,000 is for food. The budget was cut \$1.4 million this year out of the general fund. The district food service brings in revenue and that goes back into food service (for equipment, etc.). There are 68 food service employees who work an average of three hours per day. Many of the workers were stay-at-home moms, so these hours allowed them to get their children to school, work a few hours, and be home when their children came home from school. Five years ago, labor for the breakfast program was added and six cooks made breakfast, working 6 am-1 pm.

Berkenkamp (2006) reports from her survey that a key concern of school food programs is the potential added labor cost of produce acquired raw or whole from the farmer. According to Rhonda Wulf, schools are limited to providing local foods once-a-month because they are "budget limited." Corn on cob, for example, has to be hand picked and soaked. "We're doing all this planning for one ear of corn for one meal." Schools instead purchase processed or value-added foods to cut labor costs, thus ready-prepared food has replaced home cooking in our schools. Annette Derouin stressed the importance of adding "scratch cooking" back into school lunches. She reflected, "I was so shocked when I came here 12 years ago. I thought everything was from scratch. That changed in the mid-1980s." School cooks do not like scratch cooking and argued, "I don't have time to do that anymore." Annette told them, "I'm calling you a head cook. You're not a 'food heater'." Perhaps support for *locally* processed (value-added) foods for schools would serve as a compromise. The suggestion that purchases of local foods could be enhanced by further processing links directly into generating job growth in the region through promotion of local food processors and value-added products. This would foster new businesses, lesson work loads on school kitchen staff, and keep money in the local economy. Annette Derouin informed that schools can use local organic produce as long as it is used in its original form. Once processed, it is subject to USDA restrictions. Therefore, to make connections between value-added businesses and schools would require investigation of the regulations and perhaps even policy changes.

Another issue is fitting food education into the curriculum. Teachers in the Willmar school system who lack this knowledge are reluctant to teach the value of sustainable, nutritional, local foods. In Milan, nutrition is woven into the curriculum, but it must additionally meet the State Curriculum Standards. A petition to integrate healthy foods into the curriculum could be presented as part of the science-based requirements and individual teachers could be trained to develop appropriate pedagogical strategies. Lynn Mader confronted this issue by conducting workshops on "Food, Land, and People." Local experts could be invited to teach this curriculum in the schools. Joanne Berkenkamp reports on the very successful efforts made by the Hopkins school district to promote education. The Kandiyohi County Local Foods Project could form a school support group to carry out many of these activities:

- Display local food posters in school cafeterias to educate students
- Send emails to students' families, teachers, and staff to inform where and how local foods featured in school lunches are produced
- Have kitchen staff tell students about the origins of the food as they come through the lunch line
- Include information on local food in the newsletters sent home with students
- Establish a school web page that includes lunch menus and informs of the nutritional value of locally produced food (Berkenkamp 2006)

Another issue is that school meals are prepared six months to one year in advance (the September menu is planned in May) and thus schools require assurance that local food is actually available when needed. In May, they need assurance that 1500-1800 corn cobs will be available to meet their needs for 4200 students in September. Mader pointed out the circular process that impedes provisioning of local foods to schools; the institution asks "What do you have?"—the farmer asks "What do you want?"—the institution asks "What do you have?" Schools, above all, must minimize uncertainty. Clearly, it is essential to establish a communications system, such as a web site that informs schools of what seasonal products are available throughout the entire year, where they may be procured, and informing farmers of the schools' needs. A farmers' distribution network or cooperative, as suggested elsewhere, could resolve many of the most serious issues of getting local foods to individual schools. Seasonality poses obstacles, yet winter vegetables would make a welcome addition to the schools' local food purchases. Rhonda Wulf, Extension Educator, suggested that local dairy products would be a perfect way to fill year-round demand at institutions. That would feed back again into promoting more dairy farms.

In connecting schools with farmers, it is important to establish a food policy with commitment on the part of educational institutions and written agreements with farmers who will provision them. The Willmar Public Schools District-Wide Wellness Policy, approved by the district in 2006-07, provides an entry to strengthening the school's commitment. According to Annette Derouin, "This policy is a model. I do not see it as a roadblock." The district wellness policy requires: nutrition guidelines, goals for nutrition education, physical activity, involvement of parents and students "to assure a school environment that promotes and protects students' health, well-being, and ability to learn by supporting healthy eating and physical activity." Annette meets every other month with the head cook to plan menus. The Child Nutrition and WIC Reauthorization Act of 2004 requires all federally-funded school lunch programs to have such a wellness policy. Indeed, the Willmar school district's policy provides important guidelines for nutrition and nutritional education. Section III C—Nutrition Education and promotion—includes clause 2-7 on Farm to School, stating that the school district *to the extent possible* will buy and feature farm fresh foods, incorporate nutrition education curriculum, and provide students with experiential learning opportunities. It is recommended to strengthen this policy by setting a specific proportional goal, for example, to ensure that local foods constitute 5% of school lunches. A clause could include contingencies for inclement weather, crop failure, and so forth.

A primary obstacle to such a policy is the federal commodity program. Between \$110-125,000 of the \$650,000 food budget consists of USDA commodities. The district pays only for shipping and the commodities are free (except taxpayers are subsidizing these commodities). Clearly, purchasing for school lunches involves walking a tight line between fresh food and price. The school lunch program has to balance offering fresh produce with

USDA commodities which are free, yet remain within the budget. In addition, 48.4% of students are on free or reduced cost meals so that adds another dimension to the school food budget. The district is reviewed every five years for its compliance with USDA dietary guidelines. Whereas the wellness policy calls for whole grain, Annette Derouin said of the USDA, "But you don't give us any. You guys have to walk the talk." Most government commodities are not comparable to healthier, sustainably-produced foods. Moreover, commodities that are not locally produced drain profits out of the region. At the same time, a conception that organic foods belong to a special, elite niche diminishes efforts to promote local food purchases. There is push back from lobbyists to procure certain commodities and 2007-08 is the first year the school district was allowed to buy fresh apples. This year oranges and apples will be served, but before, they were all canned.

Annette Derouin and Lynn Mader visit local schools to hand out samples of new foods to children. Annette then searches for cost-effective ways to include them in school lunches. The educational benefits are that students then request that their families also purchase these local items. The extension office helps in locating foods. They get corn on the cob, for example, from the Larson farm. They talk to the children about how corn grows and is processed. Corn is provided to five schools and children are educated the same day. In October, schools will serve local apples from Sunnyside Orchard and wild rice from the Anishinaabeg Center at the White Earth reservation. Annette worried though, "I'm basically at [the farmer's] mercy to what kind of apples I'll get this year." For thanksgiving schools use local corn meal to make corn bread. Unfortunately, the closing of Dry Weather Creek Farm affects the school district too. They had obtained corn meal, oatmeal, and flour from them and have found no replacement source since the farm closed. In December they prepare garlic roasted potatoes from Brainard, in January, cheese from Litchfield, in February they had planned dinner rolls made from local flour, in March refried beans, in April, local honey is, used to make sweet and sour chicken, and in May, bison from J&L Ranch.



In 2007, fifth grade students visited the J&L Bison Ranch to meet the ranchers, John and Leila Arndt, see the bison, and learn about bison ranching. The Arndts then handed out bison hot dogs at the school. Lynn Mader commented, "This will be interesting. It's really making that connection from farm to fork" (Vanderwerf 2007). Derouin and Mader view the Willmar school district's efforts as a model and are developing a Farm to School Toolkit that is already attracting the attention of other school districts across the state. The toolkit includes recipes, menus, and names of farmers who can provide volume products. A web site is being developed that will include several components: a list of farmers, months that products are available, expense, marketing tools, and newsletters with nutritional content of products.

An important barrier identified by Annette Derouin is that, "Even knowing who to work with is an important barrier. We're even now foraging for farmers." I asked her what I, as an assessor, could recommend: "Get farmers to get on board with us. They need guidelines, to have it laid out as much as possible. **But if there's no farmers there, how are you going to do it?**" Richard Handeen of Moonstone Farm, asked if he would be willing to sell directly to schools, replied: "It is a movement I believe in. It is a higher level of production." Richard and Audrey's daughter Malena runs Easy Bean Farm. Based on Richard and Audrey's philosophy, she grew up as a vegetarian. As she remarked on the inadequacy of food in the public schools, Malena reflected, "When I was in school, all I wanted was to eat "normal"

food. It's not that I was deprived of junk food; I was spoiled with real food." Her comment illustrates the importance of early childhood education on what constitutes healthy foods and how children become accustomed to "junk food" and "healthy food." Thus emphasis on healthy eating of local, sustainably grown foods in the school system is crucial for educating citizens of the future.

In terms of getting ethnic foods into school menus, Annette Derouin commented, "It's been slow, here's why." There are no longer school personnel for English language learners. Annette had a Mexican rice dish prepared and was later told by Francisco Morales, owner of a local Mexican salsa business, "Annette, that was nasty." Thus it will be important to network with local groups to identify individuals who can offer appropriate recipes and advice on preparation of ethnic foods. Working through the Latino Service Providers, Raíces Colectivo, or individuals in the Somali community is needed. These contacts have been difficult to forge. Communication between ethnic groups is the key issue here; if they felt they had a stake in making culturally appropriate foods available in their children's schools, they might come forward.

Environmental Quality. Aside from production and connecting farmers and institutions such as schools, shifting toward a local food system can enhance a more sustainable environment. In terms of production, fertilizers and toxic chemicals (herbicides, pesticides) are increasingly polluting rivers, streams, and water tables and causing untold damage to wildlife and human health. Organic practices avoid use of such chemicals. Regarding animal production, one CAFO creates more waste per day than the city of Los Angeles. Manure lagoons not only create unbearable odors that have resulted in conflicts over feedlot land use, but they are prone to leak, posing serious risks to the environment. Livestock in these operations are dosed with antibiotics to prevent spread of diseases among closely confined animals, yet we do not know the effects of these on human health (Halweil 2004). A biomass resource assessment clarifies that poultry litter, beef and dairy waste, and swine manure produce 159,524 pounds of manure per year in Kandiyohi County (Agricultural Utilization Research Institute 2006). The Generic Environmental Impact Statement (GEIS) examined alternative production strategies that optimize livestock production and found that these not only enhance environmental quality, but also protect public health, social stability, and economic viability (Johnson et al. 2002). One such alternative would be the creation of biodigestors. A biodigestor works as a huge septic tank that captures methane (a contributor to global warming), clarifies it, and compresses it. It can both create an energy source and produce nitrogen-rich, pathogen-free, odorless fertilizers. One of these biodigestors, built by a local farmer, was observed by a sustainable research delegation in Cuba. Using excrement from his animals, it produces gas for three families in addition to fertilizer for his farm. Such systems could be easily constructed and put into operation in the Kandiyohi County region.



Cuban Biodigester

Yet another effort to create a more sustainable environment would be a project to capture farming and household waste for composting. While Minnesota winters present an obstacle for individual household composting (which could be done in basements using Red Wiggler

Worms for vermi-composting), creating a site where people could contribute to an indoor facility would help to maintain a cleaner environment and make compost available to local gardeners and farmers at minimal cost. There are gaps in our knowledge about wastes from production sites such as contract farms and industries such as Jenny-O. These should be investigated as the community seeks potential ways to clean up the environment and simultaneously provide rich composting materials for local agriculture.

In summary, the region boasts of valuable assets for creating more sustainable environments and it faces formidable obstacles. Interest and activity in sustainable agriculture is skyrocketing and programs are in place to promote the entry of new farmers (Farm Beginnings), consumption of organically produced foods (CSAs, etc.), and feeding healthier food to school children (Farm to School). LSP connects farmers to social networks for training and mutual support. The various farms represented in this report (and indubitably others not visited due to time constraints) illustrate local farmers' commitment to quality in the foods they grow, the environment they strive to protect, and their enterprising nature that employs knowledge and skills based on notions of community spirit. The passion, activism, and involvement of these farmers serve as a model to emulate. Each of these farmers networks to support other local entities by marketing their products, assisting with delivery, and helping to educate. Many employ workers and interns that provide income and education about agroecological practices. We learn from these examples that demand exceeds supply; indeed there are few sustainable farms in the region and only one in Kandiyohi County. While most practice organic methods, they generally are not certified and the data reveal that "local" trumps "organic" in importance. These farmers all took risks, faced uncertainties, and struggled. These include rising feed costs, high land values, and competition with commodity programs and large-scale marketing chains. A gap exists that could bolster economic development—comparative data on the costs of sustainable agriculture vs. commodity crops. This assessment recommends implementing policies for local food procurement (e.g., 5% of school purchases), land acquisition (e.g., land tax rebates), promotion of community gardens, creation of a system for connecting farm products to markets (e.g., a farmers' marketing association), and preservation of the environment with alternative means of waste disposal for composting.



Community food security is defined as a situation in which all community residents have access to a safe, culturally acceptable, and nutritionally adequate diet through a sustainable food system that maximizes self-reliance and social justice (Hamm and Bellows 2002, cited in Pothukuchi 2007:1). U.S. citizens became accustomed to a cheap food policy wherein 11% of our family income is spent on food, as opposed to 50-70% in some other countries. The recent increase in price of food and fuel costs, however, is generating a new perspective on the way we grow our food and where we source it: "It's making people think differently. It makes people think 'maybe I should do that differently'" (Rhonda Wulf, personal communication).

Nutrition and health are paramount considerations in establishing a local food system. Current trends, however, do not bode well for our changing eating patterns. USDA data

provide an in-depth view into the linkages between food consumption and obesity. The average American consumes several hundred more calories per day than a half century ago. Supply is only part of the answer—we have gone from 3000 calories per person a day in 1957, to 3300 calories in 1970, to 3800 calorie by 2000. For consumers, calorie intake increased an alarming 24.5% between 1970 and 2000. The portions of calories are also significant: Grains added 9.5% of the increase, fats and oils 9%, sugars 4.7%, fruits and vegetables 1.5%, meats and nuts 1%, and dairy and eggs dropped 1.5%. Eating away from home contributed to this trend, constituting 18% of total consumption in 1977 and 32% in 1995. Studies reveal that a whopping 62% of Americans were overweight in 2000, an increase of 46% since 1980. Of these, 27% were obese (30 pounds above healthy weight), double the number in 1960 (USDA 2000). Kandiyohi County data fit this trend with 37.6% being overweight, but not obese, and an additional 24.3% classified as obese, plus one-third of WIC clients suffer from obesity (personal communication, Bobbi Jo Berg, STEPS to a Healthier Willmar).

As the table below illustrates, meat consumption increased from 138.2 pounds per capita in the 1950s decade to 195.2 pounds in 2000. That involved an increase of 7 more pounds of red meat, 46 pounds more poultry, and 4 pounds more fish and shellfish over the period, in part explained by lower meat prices and raising incomes. The proportion of saturated fats in meat, however, declined from 33% to 26%. From the 1950s to 2000, Americans were drinking 38% less milk, with soft drinks and fruit drinks displacing milk in the diet. The prevalence of fast-food restaurants and salty snacks increased consumption of soft drinks vis-à-vis milk. During the same period, consumption of cheese rose 287%, from 7.7 pounds per person to 29.8 pounds, with much of this in fast foods, pizza, tacos, nachos, sandwiches, and packaged snack foods. Fast food chains and snack foods also contributed to increased consumption of fats and oils. Added fats and oils come in the form of salad and cooking oils, shortenings, and table spreads. Because fats enhance flavors, the public has become accustomed to the improved taste and the food industry complied in the 1980s by increasing fats in processed foods, resulting in a 67% increase from the 1950s to 2000 (USDA 2000). It can be demonstrated that 30,000 cases of coronary disease in the U.S. could be prevented by eating 1% less fat (Meter 2005c). The good news is that consumption of fruits and vegetables has increased 20% since the 1970s. Fresh fruit consumption was up 28% while processed fruits were up 2%. Vegetable consumption was up 23% since the 1970s, with fresh vegetables up 26%, and processed vegetables 21%. A less healthy form of vegetables, french fries, generated a 63% increase in consumption. As for grains, while consumption meets the Food Guide Pyramid, most Americans fall far short of *whole* grain consumption. Only 7% ate the recommended three servings per day. Most alarming is the 39% increase in sweeteners between the 1950s and 2000. The 152 pounds of cane sugar and fructose converts to 2/5 pound, or 52 teaspoons per day. A fifth (22%) of those sweeteners is consumed in the form of carbonated drinks, whereas in 1970 the proportion was 16% (USDA 2000). The aforementioned trend to consume more fruit and vegetables is also a factor in reducing diabetes. A study published by He et al. (2004) shows that middle-aged women with the largest increase in fruit and vegetable intake had a 24% lower risk of becoming obese.

Changing food consumption patterns, annual average per capita

	1950-59	1970-79	2000
Meat (lbs.)	138.2	177.2	195.2
Eggs (#)	374	285	250
Dairy products (lbs.)	703	548	593
Milk (gal.)	36.4	29.8	22.6
Added fats & oils (lbs.)	44.5	52.4	74.5
Fruits & vegetables (lbs.)	n.a.	587.5	707.7
Grains (lbs.)	155.4	138.2	199.9
Sweeteners (lbs.)	109.6	123.7	152.4

(source: USDA 2000)

Transformations in the food system provide striking evidence for a growing obesity epidemic. According to World Health Organization there are 850 million hungry people in the world and one billion people who are overweight (Brenton 2008). Not only do foods heavy in fats and carbohydrates make up a huge portion of the American diet, but the diversity of foods we eat has declined remarkably (Brenton 2008). Our local food environments demand a return to biodiversity in production and diet and food procurement that alleviates the disparities between hunger and obesity.

Corn is a perfect example of the narrowing of diversity in the American diet and of the old adage, “you are what you eat.” Despite the appearance of diversity, one-fourth of the food items sold in supermarkets today contain corn. Indeed examination of isotopes from human flesh among U.S. citizens (who historically depended on wheat as a basic staple) now indicates a higher ratio of Carbon 13—an indicator of a corn-based diet—than among Mexicans who depended on corn as a basis of their diet for thousands of years. The Mexicans, however enriched their diets with legumes and squash, completing a more nutritionally enriched synergy of food intake. Recall that soft drinks such as Coke (among uncountable other products) now are sweetened with corn syrup and our Big Macs were made possible on corn-fed beef. Just our consumption of high fructose corn syrup alone soared from 45 lbs. to 66 lbs. per year since 1985 (Pollan 2006). It does not take a stretch of the imagination to realize that diverse diets are more nutritional and health-enhancing than those that narrow the dietary intake.

The diversion of much of the corn production in the U.S. to cattle feed increases consumption of saturated fats. For animals that evolved as grazers, corn-based diets cause rumination to cease and a slimy layer in the rumen traps gas, causing inflation of the stomach. The acid balance becomes upset, causing illness, abscesses in the liver, and can even cause death. Feedlot cattle receive heavy doses of antibiotics and the rapid assembly-line processing can lead to contamination and exposure of humans to deadly *E. coli* bacteria (the O157:H7 strain evolved resistance to acidic environments) (Pollan 2006).

The surgeon general identifies obesity as epidemic in its scope. One in five Americans is obese and three in five are overweight. **It costs \$90 billion per year to treat obesity-related health problems** (Pollan 2006). With half of adults in the country overweight, obesity in the U.S. incurs \$118 billion per year in medical costs. Even more astounding is the fact that this amount constitutes 25% of what consumers pay for food each year (Meter 2005c). In Kandiyohi County, 37.6% of residents are obese or overweight and only 23% of

surveyed residents consume the recommended five or more servings of fruits and vegetables per day (personal communication, Bobbi Jo Berg, Kandiyohi County Public Health). The choice to eat fewer processed foods and more locally-produced, fresh foods can curtail these humongous medical expenses, but more importantly, can contribute to improved human health. Pollan (2006) points out the paradox in this situation. One dollar buys 1200 calories of potato chips and cookies or 875 calories of soda pop; that same dollar buys only 250 calories of carrots. We are led by a cheap food policy to devastate our nutritional intake by substituting sugars, fats, and starches for more healthy fruits and vegetables. We must ask why our government subsidizes corn for high fructose corn syrup, yet provides *no* subsidies for locally-grown, fresh produce.

Compounding the obesity epidemic is the increasing frequency of Type II diabetes. As processed foods include more sweeteners, the body's capacity to manage glucose becomes overwhelmed and glucose molecules swamp the blood stream (Pollan 2006). The number of Americans with diabetes doubled over the past 15 years, reaching 14.6 million. One-third of children now develop diabetes. **The medical costs for treating diabetes are on the order of \$132 billion per year** (U.S. Department of Health and Human Services 2008). According to Health and Nutrition Extension Educator Mary Caskey, **for every dollar spent on local food, \$10.60 is saved on health costs.** That is certainly a compelling reason to support local food purchases and consumption.

The Kandiyohi County Public Health office and STEPS program are concerned with nutrition, diabetes, and obesity. STEPS supports community-based chronic disease prevention programs to reduce the burden of obesity, diabetes, and asthma by addressing three related risk factors: physical inactivity, poor nutrition, and tobacco use. Program specialists work with schools, work sites, and health care institutions to promote healthier lifestyles and help people make long-lasting and sustainable changes that can reduce their risk for chronic diseases. The STEPS mission offers an important call for action: "Real community involvement is needed to successfully change policies and environments and prevent chronic diseases at the local level. In each community, the STEPS Program brings together a diverse group of leaders from the public sector, nonprofit organizations, and private entities to design unique disease prevention and health promotion strategies that respond to local needs and take advantage of local assets" (U.S. Department of Health and Human Services 2008:3).

Other factors compound the health status of the population. Many of these relate to industrial processing of food. Global out-sourcing of production causes 13 times the number of pesticide-related deaths in the global South as in the North. This is not the venue for exploring the devastating cost to human life abroad, but half of the foods produced abroad and imported to the U.S. contain pesticide residues (Weir and Schapiro 1999). As pests developed resistance to pesticides, new formulas and more frequent doses sent production onto a pesticide treadmill. Chemicals kill beneficial as well as harmful insects, and organic farmers who abstain from pesticide use work with nature to provide healthier, safer food. Industrial production is also more likely to result in food poisoning and food-borne disease. Food poisoning causes 5,000 deaths per year in the U.S. (Meter 2005c). Recall the Bovine Spongiform Encephalopathy (BSE, or mad cow disease) outbreaks in the United Kingdom and elsewhere that cause degeneration of the brain and spinal chord in animals. Three cases have occurred in the U.S. Contracted by humans, it takes the form of Creutzfeldt-Jakob disease which has killed around 200 humans (Shiva 2001). To this we add the 2007 outbreak of *E. coli* infections from eating fresh spinach (Earthbound's experience reveals the

risks of “industrial organic”). Together with other killers such as *Salmonella*, factory farm conditions are more likely to pose health and even life and death threats to the human population. Given a choice people will prefer local foods produced by farmers they know.

There's no escape. You are consuming mass quantities of genetically modified food. The milk on your Cheerios this morning came from a genetically modified cow, and the Cheerios themselves featured genetically modified whole grain goodness. At lunch you'll enjoy french fries from genetically modified potatoes and perhaps a bucket of genetically modified fried chicken
(Freeman 2000).

Genetic engineering poses additional concerns. The first GMO crop was Calgene's FLAVR SAVR tomato, which proved unsuccessful. Corporations are inserting genes from one species into another to create desirable traits; in the process, they are introducing new food forms into the food chain, unknown through millions of years of evolution. Some examples include: flounder genes inserted into tomatoes for cold resistance, chicken genes in apples for blight resistance, and the Brazil nut gene in soybeans, among others. A third of U.S. corn is genetically modified with Bt (*Bacillus thuringiensis*) so that every cell of the corn, manufactures its own pesticide, a toxin that kills

caterpillars. Aventis' Starlink corn was not approved for human consumption, yet at some point animal feed and corn for humans was mixed and it showed up in taco shells. Starlink produced the bacterial toxin Cry9C which is an allergen.

Genetically modified foods are controversial and heated argument surrounds their production. There is little research on their effects on human health. Ho (2005) does provide some evidence:

- Kidney and blood abnormalities occurred in rats fed Monsanto's GM maize
- Mysterious illnesses afflicted Philipinos when GM maize was introduced; antibodies to the Bt protein were found in their bodies
- A dozen cows died and others became ill after eating Syngenta's GM maize
- Rats fed GM potatoes suffered damage in every body organ system
- Rats fed GM tomatoes developed small holes in their stomach (Ho 2005).

We know that 8 percent of children and 2 percent of adults have allergic reaction to traditional foods. What we're dealing with is the introduction of new genetic foods that have genes that code for proteins that we've never consumed. We just don't know what the reaction's likely to be
(Jeremy Rifkin, quoted in Palfreman).

To date, GMOs are not labeled so that individuals with allergies to these products may unknowingly consume them and suffer health risks (Palfreman 2001). The majority of proteins inserted into GM crops (22 of 33) are similar to allergens. There is an unknown risk of creating new viruses and bacteria that spread disease or that antibiotic resistance in hosts may make them resistant to treatment (Ho 2005).

In summary, dramatic changes in the food we eat are creating health epidemics (obesity, diabetes, coronary disease), and exposing human populations to toxic (often carcinogenic) agricultural chemicals, food-borne disease, and experimentation with cross-species genetic manipulation carries untold risks. Education will be a significant task with food activists and

local social service agencies working together to put diversity back into the diet and weaning our communities from fast food to farm-fresh foods.






Equity in Access to Food. Failure to achieve food security is unacceptable in a country that produces abundant food surpluses. The average weekly wage in Kandiyohi County is \$555, compared to \$784 for the state (Willmar Legal Aid). Low income affects 13% of children attending the Willmar Public Schools who live in families whose income falls below the federal poverty level (U.S. Census Bureau, 2005). Approximately 45% of students in the school district receive free or reduced-price meals, 10% of households lack food security, and 50% of the elderly in the U.S. who seek medical care have been found to be malnourished (Meter 2005c). With the growing economic crisis

and cutbacks in hours at work sites such as Walmart, there are insufficient jobs available at a liveable wage. The region has lost manufacturing jobs and phasing out of the state hospital further decreased employment. Many area residents are on fixed incomes (such as social security, SSI, etc.) and cost of living increases do not allow these individuals' incomes to keep pace with inflation. SRS is a new medical assistance program that provides supplemental help, covers new medications, and has fewer co-pays; the number of SRS clients increased 10% last year (Christy Kurth, personal communication).

With 9.2% of households in the county (13.1% in Willmar) whose incomes fall below the poverty level, a significant issue is access to food stamps. According to Barbara Kavanaugh, Financial Assistance Supervisor for the Kandiyohi County Family Service Department, recipients must be income and asset eligible. A family of four, for example, must have an income below \$2,238 and assets (not including home and retirement funds) below \$7,000. Basic needs are calculated by considering earned versus unearned income. A family of four with no income would receive \$542 per month, although there are exceptions for disability. Clients use an EBC card to make purchases and these can be used where scanning devices are not available, such as at farmers' markets (a fact perhaps not widely known). Farmers submit a receipt for reimbursement. Careful examination of federal regulations is especially important during this period of economic crisis. One year ago, the asset level was increased, allowing more elderly citizens to receive aid. George Hoffman, Department of Human Services, provided the following data for Kandiyohi County in 2008: 1,238 cases served each month, including 2,831 individuals, with total expenditures of \$3,144,655 per month. The ethnic component is broken down by the following data for 2008: Native American 412 (3.28%); Asian 1,718 (13.69%); Black 5,894 (46.98%); Pacific Islander 12 (.001%); Caucasian 4,506 (35.91%); and Other 15 (.001%), for a total of 12,547. It is not clear why his data did not include the Hispanic population. The following charts indicate income and poverty levels for Willmar, Kandiyohi County, and compare these with the state:


Estimated median household income in 2007

Willmar	 \$38,200
Kandiyohi County	 \$47,109
Minnesota:	 \$55,802

Residents with income below the poverty level in 2007

Willmar	 13.1%
Kandiyohi County	 9.2%
State	 7.9%

Residents with income below 50% of the poverty level in 2007

Willmar	 6.0%
Kandiyohi County	 3.7%
Minnesota:	 3.2%

(Willmar, MN Detailed Profile 2008; Kandiyohi County Detailed Profile 2008)

A number of agencies play stakeholder roles in supporting issues of social justice. The STEPS Program’s efforts focus on residents at greatest risk for chronic conditions, including racial and ethnic minority groups and people living below the federal poverty level. Stacey Roberts, executive director of United Way, reported on that agency’s role in working to alleviate poverty. United Way partners with the Willmar Area Food Shelf (see below), an organization that is realizing dramatic increases in demand for food. Another partner of United Way is Fare for All, an Emergency Food Shelf Network program. Members save up to 50% on their groceries. There are no income guidelines and food packages range from \$12 to \$22.³ In exchange, recipients are required to volunteer two hours per month.⁴ However, distribution of food to the Willmar area has been curtailed since Willmar lacks a large facility for stocking and distribution of food. A community the size of Willmar could certainly find space so that distributions can be made available to Willmar and surrounding communities (the nearest distribution site is currently Montevideo). Indeed, a number of vacant buildings were observed in downtown Willmar. Acquiring space in one of these buildings or partnering with a church could again make more food available. United Way also funded the YMCA community garden. More community gardens are needed to encourage local food production and enable people to cut their food bills with more healthy, locally grown food. Freeing up the burden of the weekly grocery bill also means people have more money to spend in the local community.

“To treat food as if it were a commodity no different than gold or oil—with no inherent human value...--is a recipe for food price shock in poor households” (Marchione 2008:6).

³ A \$12 package is a “light pack” (1 meat item, fruits, vegetables) or one that contains meat only (4 frozen meat items); the \$17 pack is a regular supply (4 fresh vegetable items, 3 fresh fruit items, 4 frozen meats), the \$20 share is a family pack (25 staples such as oil, flour, sugar, peanut butter, jelly, soup, canned fruits and vegetables, boxed dinners, cereal, rice, pasta), and the \$22 package is a “holiday pack.” A vegetarian pack is also available for \$10.

⁴ Volunteer opportunities include: helping at the Fare for All distribution site, blood donations, raking or shoveling, carpooling, service to a church, temple, or synagogue, providing meals to the sick, baby-sitting, working at a school, making blankets for charities, helping at a nursing home, etc.

Willmar Area Food Shelf (WAFS). The Willmar Area Food Shelf was founded in 1982. Christie Kurth, Executive Director of the food shelf, reports on a dramatic increase in demand by clients of the food shelf. Food equity is a growing and serious issue in Kandiyohi County. In its first year in 1982, WAFS served 60 households per month. The number of households increased to 382 per month in 2007. By early 2008, it was serving an average of 440 households per month. A total of 14,000 people were fed with a WAFS budget of \$141,000 last year. The USDA has responded by increasing eligibility standards from 125% to 200% of the federal poverty guideline. A family that surpasses 200% will not be eligible for free food at the food shelf. For 2008, income poverty levels by family size were as follows:

<u>Family Size</u>	<u>Income</u>
1	\$10,400
2	\$14,000
3	\$17,600
4	\$22,200
5	\$24,800
6	\$28,400
7	\$32,000
8	\$35,600

A family that is within 185% of these amounts is eligible for their children to receive free school lunches. Families may receive free food once per month. The following table illustrates the role of the Willmar Area Food Shelf in supporting families in need during June, 2008 and the entire year of 2007.

Willmar Area Food Shelf	Month of June, 2008	Year of 2007
New clients	55	416
Families served	530	4,594
Seniors	35	220
Adults	897	7,968
Children	710	6,502
Pounds of food	35,057	361,505
Produce	8,524	77,170

The most frequent household recipients are adults with no children (46%), followed by single parents with children (21%), married couples with children (19%), and multi-generational households (14%). The majority of clients are Caucasian (56%), followed by Latinos (37%), multi-ethnic families (4.5%), African Americans (1%), Native Americans (.8%), and Somalis (.7%). Over half (53%) of households include at least one employed adult. Of all clients, 44% are children under the age of 18. Another 15% are retired or disabled, and 2% are homeless.

The Willmar Area Food Shelf plays an important role in helping area residents to endure economically stressed times. Yet 94.8% of the food shelf's products come from Second Harvest, which supplies mostly government commodities with little connection to local food production. Christie, the current executive director, purchased \$11,240 in food from Second Harvest in 2008 and \$2,643 from Food Service of America. Unlike her predecessor, she no

longer purchases from CISCO. Little federal funding is channeled to the food shelf; churches provide the largest support (32%). Individuals donate 20%, while Kandiyohi County and local businesses each contribute another 10%. Hunger Solutions provides 9% of financial support, while civic and community agencies contribute 6%. Minnesota Food Share gives 3%, as do grants and trusts, which contribute another 3% for a total 2008 financial budget of \$142,000. For the past two years the food shelf has had a surplus budget, which was used to make a down payment on the building; the remainder is being used as a maintenance fund. The food shelf does receive community donations from churches, fund raisers held by school children, and farmers with surplus crops. Indeed, four farmers plant extra crops specifically for the food shelf.

Any attempt to provide more local foods to food shelf recipients faces major challenges. Second Harvest receives donations from businesses, such as Target and arranges delivery to the food shelf. But with the exception of produce, the food shelf only deals with non-perishable foods. There is a "Rescue Meat" program to acquire meat that can no longer be sold at grocery stores, but the meat is always frozen. Fresh produce makes up only 5% of the food shelf's products. Here too, liability is at issue. A local caterer who prepared too much food for an event wanted to donate the surplus to the food shelf, but the food shelf was not certified to give away this food. Fresh foods would require USDA certification, as well as a USDA certified kitchen that would be subject to annual inspection.

The Willmar Area Food Shelf and United Way began a pilot backpack program in July, 2008. While students are on vacation during the summer, children were sent home with backpacks filled with food. A newly constituted Grow Mobile project provided the food. Thirty-five children received one pound of pinto beans, tortillas, canned soup, ravioli, and so forth, worth about \$10. Some of this came from Second Harvest and a portion was donated by Cashwise. Children returned on Monday with the empty backpacks, which were again refilled the following Friday. Children that received the backpacks were identified from the Kindergarten Readiness Program. In addition, the Salvation Army has feeding programs at the two trailer parks, so the Grow Mobile also goes to the trailer parks. This program is largely directed to Hispanic children and their families; of the 35 children in the program, only two are Somali.

Heartland Community Action Agency. Debbie Brandt, Community Relations Director of Heartland Community Action Agency, explained that Heartland's mission is to eliminate poverty and advocate for low-income families. This agency works to connect people, institutions, and services and serves three other counties (McLeod, Meeker, Renville) in addition to Kandiyohi. Heartland offers a wide range of services; for purposes of this assessment, the Food Support Outreach Program will be of concern. It provides education and information to the community about the Food Stamp Program and assists with applications for food stamps. One issue is the stigma attached to obtaining food stamp support at the county building. Heartland oversees monthly food distributions; here too, food distributions are sourced primarily from Second Harvest. Heartland can play an important role in developing the local food system. First, effort should be made to get local food into the distribution system. Second, it would be most useful to use these distribution sites as educational opportunities, by providing literature, visual material, and information on increasing the consumption of local foods and encouraging community gardening.

Heartland assesses the entire region every three months. With a staff of 100, they surveyed the basic food and shelter needs for 500 people in four counties. Among those who responded, 20% lack adequate food and shelter, yet 9% of clients noted improvement. Recruitment into the program is intensive for all Heartland employees. They work with clients, recruit door-to-door for Head Start, hold health fairs, and work through the extension office. In addition, they try to work with businesses, such as Jenny-O, to inform people about their programs.

The Head Start program, also sponsored by Heartland, has five centers and three home-based options. This is a federally-funded program, but support is augmented by grants from the state and local levels. About 170 children from 150 families in the county enrolled. Children receive breakfast, lunch, and an afternoon snack. Head Start involves parents in decision-making policies and encourages their participation in the classroom. One of the assessment recommendations is to establish children's' gardens at all schools, including Head Start. Debbie Brandt of Heartland explained that Head Start sites lack space for community gardens. This is a situation that calls for amelioration, as children could be learning from an early age the value of growing healthy local foods and gaining practical experience in raising them.

Household income and poverty levels in Kandiyohi County do not compare favorably with state data. Low incomes and high poverty particularly impact children, the elderly, and ethnic populations. Yet, the region is rich in individuals and agencies involved in ensuring food equity to disadvantaged families. A major conclusion is that the growing demand and significant distributions of food are heavily reliant on government commodity programs. Mechanisms are needed to connect local farmers with these food distribution systems and establishment of community and children's' gardens would help to ameliorate this situation



Ethnic Contributions to the Economy

Corrie (2008) analyzed the substantial contributions that ethnic populations contribute to the U.S. economy. He reports that Mexican Americans contribute to the Minnesotan economy as consumer capital, human capital, productive capital, global capital, fiscal capital, political capital, and cultural capital. They contribute \$944 million in buying power each year to the Minnesota economy. In Kandiyohi County, Mexican American buying power is \$14 million, \$12 million of which is in Willmar (2008:51-52). Recent years have witnessed tremendous growth in firms operated by Mexican Americans and firms that

rely on Mexican American labor. Mexican Americans pay \$283 million in state and federal taxes; payments to state and local taxes in Kandiyohi County amount to \$2,003,642 and \$1,787,727 in Willmar (2008:54-55). Cultural events and entrepreneurship draw tourist dollars to the region and the growing block of Mexican American voters speaks of their political participation. These data indicate the sizable potential to enhance local economy and culture and illustrate the importance for supporting and building on efforts of Kandiyohi County's growing ethnic populations to enter new farming, processing, and merchant ventures related to food production, distribution, and consumption.

If we take the 2006 population of 41,088 for Kandiyohi County, 3,295 are Hispanic or Latino (U.S. Census Bureau 2000). Adapting Corrie’s (2008) policy simulations at the state level, and taking Kandiyohi County Hispanics/Latinos as 1.7% of the state Hispanic/Latino population, they represent \$16,048,000 in buying power (\$944 million at the state level). Presuming that each job creates \$30-35,000 in earnings, Corrie found that the value of a single job to the state economy is \$15,000. If we presume 1,270 Hispanic/Latinos in the labor force in Kandiyohi County (U.S. Census Bureau 2000), this is equivalent to a value of \$19,050,000 to the county. Corrie concludes that there has been insufficient investment to nurture Mexican American businesses and that “the future of Minnesota will depend on how much we invest in this community today” (2008:14). One-fourth of the Mexican American population in the country is employed in the manufacturing sector and most of these are employed in the food industry. For Kandiyohi County, it will be important to promote opportunities to enter production, processing, sales, and consumption businesses that serve the *local* food economy, rather than large-scale economic activities that drain wealth out of the region.

While the county population is diverse, Somalis make up a new and growing ethnic group. In the state there are 63,612 African immigrants, many of whom are political refugees (Corrie 2006). According to Willmar Legal Aid, there are 1000 Somali residents in Willmar. Compared to other immigrants, they tend to have higher educational levels and are more often employed in management, professional, and service industries. At the state level, buying power of the Somali population is \$216 million and \$715,912 in Willmar (Corrie 2006).

The city of Willmar and surrounding communities are culturally diverse. Ancestries include German (34.1%), Norwegian (25.2%), Swedish (13.6%), Irish (6.4%), Dutch (5.8%), United States (2.9%), and non-European groups that include Hispanic (15.9%), Black (0.9%), and Native American (0.6%). In Willmar, 7%, or 1,291 residents are foreign born (5.6% Latin America, 0.7% Africa) (Willmar, MN Detailed Profile 2008). Ken Warner, President of the Willmar Lakes Area Chamber of Commerce, claims that 20% of Willmar residents self-identify as Latino. These trends are reflected at the county level with 90.3% of European descent, 8.0% Hispanic, and .5% Black making up other ethnic minorities; 1,547 county residents are foreign-born (Kandiyohi County Detailed Profile 2008).

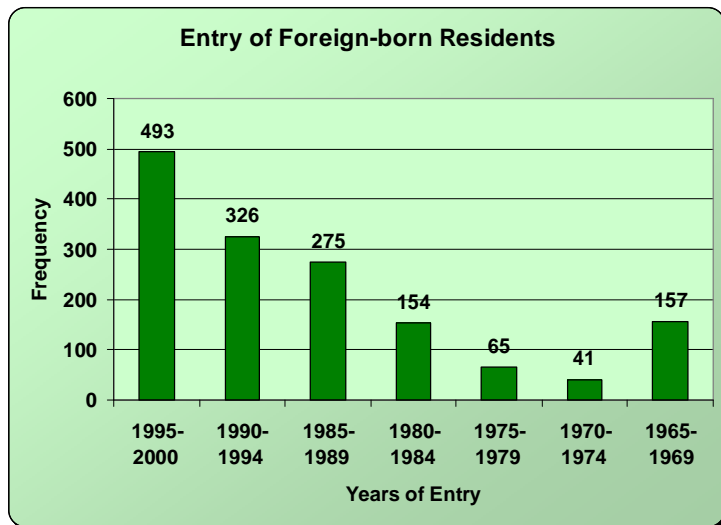
Number of foreign born residents

Willmar	 7.0%
Kandiyohi County	 3.8%
State:	 5.3%

(source: Willmar, MN Detailed Profile 2008; Kandiyohi County Detailed Profile 2008)

The most common places of birth for foreign-born residents are: Mexico (59%), Eastern Africa (7%), Honduras (7%), Canada (5%), Guatemala (2%), Korea (2%), and Northern Europe (2%). These data are significant when considering positive outcomes of the Kandiyohi County Local Food System project for the increasingly diverse population, as illustrated in the following graph:

Frequency of foreign-born emigrants to Kandiyohi County (1965-2000)



(source: Kandiyohi County Detailed Profile 2008)

As Jenny-O expanded in the late 1980s and early 1990s, the company intensively recruited Latino workers. Stress on the educational and housing infrastructure with this swelling population engendered racial hostilities. Residents, public officials, community leaders, ministers, and social organizations held public forums to address the issues. Out of this context emerged Vision 20/20 in 1999, a project to plan and assess strategies for improving the quality of life over the next 20 years. The effort was sponsored by Willmar and Kandiyohi County officials, Willmar Area Public Schools, and the Willmar Lakes Area Chamber of Commerce, but was accompanied by 250 citizens representing different ethnic and cultural traditions—strongly showing the organizing and leadership roles that can be achieved in the area. From that beginning, another entity, the West Central Integration Collaborative was born in 2003 (see below).

Despite Vision 20/20's success, there has been little effort to date to incorporate the Latino and Somali communities, as well as other ethnic groups, into the Kandiyohi County Local Food System project. Indeed, these communities have taken their own initiatives to create, if not farming opportunities, businesses that supply a significant demand for ethnic foods. Some of these efforts have been more successful than others. Social equity within the community and region can be enhanced when women, diverse cultural groups, and those who are not served well by the current food system own their own businesses (Pothukuchi 2007).

To further promote participation of ethnic populations in the local foods project, it is important to frame information according to cultural norms and in multiple languages. Where word-of-mouth is the principle means to inform these communities, messages on how people can become involved in farming, processing, and distribution and why it is important to do so must be clearly presented, tangible, and offer concrete data on the costs and benefits. Clearly demonstrable benefits will be essential to guarantee participation and personal stories of success can aid in this process (personal communication, Roberto Valdéz). Plans might be made to work through local organizations such as Raices Colectivo to collect these accounts. Ways to ensure active participation of community leaders must be sought and the very well-defined, knowledgeable, and skilled leaders in Willmar and surrounding

communities should be brought in for more active participation. Roberto Valdéz clarified that critical for success is the establishment of connections among diverse actors to build relationships across cultural groups. Several organizations serve as key resources for promoting greater participation of ethnic leadership in the local food system.

Willmar Area Multicultural Market (WAMM). An important initiative at the center of the production-distribution-consumption chain is the non-profit WAMM project, coordinated by Roberto Valdéz and Lourdes Schwab. WAMM represents one of the strongest assets to promote economic development in the Willmar area and exemplifies the impressive success in establishing micro-enterprises and providing entrepreneurial training. WAMM keeps dollars local, attracts customers and tourists, creates employment opportunities, diversifies the local economy, provides an outlet for locally produced ethnic products, and connects the diverse populations in Willmar. WAMM has grown from 10 to 36 ethnic businesses (including Hmong, Somali, Latino and even Celtic)⁵ in four years; 25 of these will be housed in a downtown Willmar building that is owned and governed by a board of WAMM business owners. Members hold monthly meetings and Roberto Valdéz gives workshops to assist new business entrepreneurs. These include bi-monthly training sessions called Talk Business, and are supplemented by trainers from Ridgewater College. Roberto is now focusing on technical assistance to business people in order to help them generate profits.

This admirable project has programming dollars but lacks capital funds, thus WAMM needs more financial assistance. Sources for support include Blue Cross/Blue Shield, the Latino Economic Development Commission in the Twin Cities, Otto Bremer Foundation, City of Willmar, the Southwest Initiative, and the Minnesota Collaborative for Latino Economic Development Initiative. Even with this support, WAMM needs to raise one million dollars in matching funds. Would this be a viable operation to support? The growth in local ethnic business suggests a resounding “yes” in that five years ago there were only five ethnic businesses and now there are 36. A survey revealed that:

- 90.0% of respondents would frequent a multicultural marketplace
- 43.5% of respondents would like to open a business in Willmar
- 51.3% of respondents would like to start a business in a multicultural marketplace

If each business were to generate five jobs, this would most certainly create economic growth for the Kandiyohi region. Moreover, the goal is to achieve 25% sales of local food—fresh fruit, vegetables, and produce, available to the community as a one-stop shopping experience. These businesses are networking, purchasing loads of goods as a unit, and sharing the costs. Their striking success provides a model and deserves support in the way of grant funding, zoning policies, and institutional support.

⁵ The 33 ethnic-owned businesses in 2002 included: La Fiesta Market, Antonio’s Mexican Restaurant, Bihi’s General Store, Bulgarian Art, Castro Roofing and Construction, Coalition of African Community Services, El Tapatio Mexican Restaurant, Estrella Bakery, Francisco’s Salsa, Golden Palace, Honduras Delivery, Juan Espinoza Translating Services, Lakeview Inn, Mahanaim Radio Station, Martinez Insurance, Novedades Alyssa, Onates Latin Market and Boutique, Panadero Veracruz Bakery, Panda Garden, Prestige Motors, Professional Interpreting Translating Services, Rodriguez Baked Goods and More, Rosita’s Barbacoa Restaurant, Somos Una Familia Newspaper, Supermercado and Carniceria El Guerredito, Tacos May, Taqueria Guerredito, Tex Mex Restaurant, Vannandy’s Bar and Night Club, Vero Arte, Yogurt Plus, and Western Wear (a few of these have not had success).

Coalition of African Community Services of Kandiyohi County. Abdi Duh is the Somali leader who founded this initiative. He was able to organize community citizens to provide social, educational, and economic services for the 2,000 native Africans who live in the area. He had just completed his M.A. in public administration when civil war drove large numbers of Somalis into political refuge in the U.S. As new entries faced problems of adjustment, Abdi Duh worked to bridge the cultural gap. He serves on the board of LegalCORPS that provides free legal assistance to nonprofit organizations and micro-businesses. Many Somalis, like Latinos, were employed by Jenny-O, but others have opened local businesses, such as Mohamed Bihi's Somalian grocery store.



The West Central Integration Collaborative (WCIC) integrates the communities of Atwater, Clara City, Cosmos, Grove City, Kerkhoven, New London, Maynard, Murdock, Sacred Heart, Spicer, Sunberg, Raymond, Renville, and Willmar into a multicultural, multidisciplinary collaborative that works within the spheres of education, health, and business. Funded by the Minnesota Department of Education, City of Willmar, and Kandiyohi County, it focuses on promoting the development of multicultural and culturally sensitive school and community projects. It also centers on the promotion of cultural integration in the education, health, and business systems for the betterment of the community. Thus many of these aims intersect with issues of food, whether educating children about healthy and nutritional foods, fighting epidemics of obesity and diabetes, or supporting local businesses that are food-related. Executive Director of WCIC, Idalia "Charly" Leuze, worked with Annette Derouin, Director of Food and Nutrition Services for the Willmar school system, to get culturally diverse food items such as pinto beans and quesadillas into school lunch menus at least once per month. Far surpassing other school districts, ethnic minority students make up 27% of the Willmar area schools' enrollment.

The Collaborative's achievements include:

- A 23% increase in the number of minority students graduating from 2002-2003
- An 80% increase in the number of minority students and parents attending K-12 school conferences
- A revitalized, culturally-responsive youth soccer program that grew from 40 participants to 125 in just one year
- A 600% increase in minority leadership on civic committees.
- An attendance of over 2,000 for Willmar's first "Celebration of Cultures" event (Ken Warner report)

Raíces Colectivo is an organization of about a dozen members who meet monthly. Members sell food items, such as tamales, mangos or cucumbers with chili powder, chocolate bananas, and corn on the cob at the farmers' markets. They also cater special events, such as the Cinco de Mayo celebration. Colectivo members have done a tortilla-making demonstration at the school, but only the high school and one elementary school have full kitchens to accommodate them. The school lunch staff tends to be protective of their turf when outside groups come in, since licensed staff must be present and people must be trained, thus mechanisms should be sought to facilitate more of these activities.

Members of the Colectivo would like to gain access to a certified kitchen so that they could prepare and sell food items, but certification has been an issue (Paz y Esperanza Church, for example, offered their kitchen but it does not meet USDA standards). The group received a \$1500 grant for roasters, a tamale steamer, storage containers, utensils, coolers, trays, supplies, and so forth, and as a non-profit organization, they do not pay taxes. Their goal is to convert a facility into a community kitchen, but there are also liability and staffing issues. The costs for an existing kitchen would be \$100,000. Charly reported that Café la Salsa on Lakeland Drive might be willing to sell for \$90,000; the building is currently leased. The Colectivo applied for a Northwest Foundation grant but were not successful. There is also the closed Veracruz bakery in Willmar that may become available for purchase or lease. In fact, a number of vacant buildings in Willmar leave the impression that facilities are available, if only the economic support for new businesses would materialize. There is also interest in a mobile kitchen that could be moved to different locations for sales at special events. The Colectivo's efforts to purchase a local restaurant or kitchen facility should be supported by a development grant that would not only provide jobs for such an enterprise, but stimulate the local economy through sales of Mexican foods.

A USDA approved kitchen or restaurant could be supplemented by the establishment of a *tortillería* (tortilla factory) to produce tortillas that are in high demand by the local community. Local farmers could be encouraged to produce non-genetically modified white corn, with a ready-made market of the *tortillería*. According to Roberto Valdéz, the USDA would not approve older machinery for making tortillas, thus new equipment would be required. *If* the equipment were new, USDA might approve a tortilla factory, but issues of water use, sewage, and electricity would also require investigation. The equipment would be a costly initial expenditure (\$30,000-\$50,000 was suggested by Colectivo members). But the long-term benefits of selling locally produced *nixtamal* (corn dough) for tamales and machine-made tortillas would not only provide new jobs, but further enhance the local food system that now depends on imported, packaged, store-bought tortillas (most likely made of genetically modified corn) sold at large chain stores. Indeed, with rising transportation costs, the larger stores might even purchase tortillas for resale from this local business. A cost analysis as well as guidance on USDA regulations is recommended to put this potentially income-generating business in place. Once realized, women who operate the business would be empowered by earning additional income and acquisition of important managerial skills. To integrate this project with production of organic corn through a beginning farmers' program would further stimulate the local economy.



**Successful women's cooperative
tortillería in Mexico**

Taquería El Guerredito is a Mexican carry-out restaurant in the Kandi Mall. The owner, Valentin Ciraco, first had a Mexican supermarket, El Guerredito, at 324 5th St. SW in Willmar. After refinancing his home to make the down payment and operating the supermarket for six years, he closed it six years ago. One of the ironies of this failed business is the fact that Valentín still owns the building and is paying on it, but unable to sell it. At the same time, there is demand for space for new businesses (e.g., the Círculo Colectivo is seeking a place to open a kitchen). Alternatively, it could be used as a much-needed food distribution site.

The building, a huge financial burden for Valentín, could—with support from economic development interests—be purchased to create a new business, provide new jobs, and stimulate the local economy.

When Valentín migrated from Guerrero to Chicago, he bought a lonchería (lunch stand) and discovered that he liked the work. He said “No querria trabajar con nadie”—he wanted to work for himself. He bought already prepared food to sell and did this for 5-6 years, earning \$350 per day. Then he began to sell tomatoes, chilies, onions, and tortillas. His brother was in Minneapolis so he moved there 16 years ago. There he sold food at a stand in the football field. Working weekends, he was earning \$1000 per week on Saturday and Sunday, but few customers made purchases. When it rained the food went bad and he could not sell it. Valentín also worked in a panadería (bakery). He eventually decided to go into business for himself, but the rent for buildings was high (\$1000 per month). He came to Willmar, saved for two years, and purchased the building that housed his supermarket. Understanding supply and demand is essential to avoid risk, as Valentín explained, “Tienes que ver el pueblo, que clase de raíz hay” (you have to see the town, what kind of people there are), so he talked to people and got a sense of whether they were interested in his proposed business or not. But the grocery store was difficult for him. “Todo el tiempo tiene que mete y mete dinero” (All the time you have to spend and spend money). He had to invest a significant amount to purchase merchandise that would sit for long periods on the shelf. As he put it, there was “mucho dinero parado” (a lot of money not moving). His grocery store required a lot of work; all of his family helped, and he was rarely at home. He did have plenty of clients, giving him enough to provide for his family, but he re-invested all his profits in new merchandise. Would he recommend going into this business to others? He would tell them “if they have \$30,000, don’t do it. That’s very little.” For meat, he had to spend \$5,000-6,000 per week, “y no vas a vender todo, y no gana uno mucho. Donde se gana es la carne” (and you are not going to sell everything, and you don’t earn much. Where you earn is with the meat.). His grocery store had a carnicería (meat shop) which was very important to him. With a 60 pound box of meat he made a \$100 profit. What was his biggest obstacle with the grocery store? The electricity was expensive—\$800-900 per month, plus paying wages to workers.

Valentín bought merchandise from Chicago from various companies. A central issue regarding ethnic businesses is that much of the product is not purchased locally. It would seem logical that transportation costs would increase costs. Valentín challenged this idea by saying that there is much competition in Chicago and businesses lower prices to increase sales. If he were to sell higher priced local products, his prices would go up, and then, “Quién está perjudicando? El cliente!” (Who is it hurting? The client!). This would cause him to lose business. The cheapest place to buy though is Restaurant Depot in Chicago. “Este lugar vende todo lo que busque—es grandísimo” (This place sells everything that you look for—it is huge). He goes to Minneapolis weekly to buy merchandise. He saves \$400 by buying \$1600 worth of meat for the Taquería from Minneapolis. In terms of price and time, for one dollar price difference, he said, it is not worth buying local. Another issue, he pointed out, is that it takes much time to seek out products among the various farmers—he simply doesn’t have time for that. I explained the idea of a farmers’ marketing association, and he said given that, he could buy from them. Nonetheless, he went out of business and established Taquería El Gerredito.

Valentín has had the taquería for three years; he knew it would work because he sold tacos in his store. A Honduran woman owned the taquería before but only lasted one year because she didn't have much business. He had first tried to find a loan to start a restaurant in this grocery store. Valentín was able to get a loan for \$25,000 from Fargo Bank to purchase the business from the Honduran woman. Besides tacos he sells hand-made "gorditos," "huaraches," (Mexican snacks) and uses beef, pork, and tripe as filling. "Si no tengo tripas, se enoja" (If I don't have tripe, the people get mad). Tripe can be purchased in a variety of locations. He makes a profit of about \$2000 per month, and pays \$700 for the building. With his Taqueria, unlike the grocery store, there is constant turnover of the food ingredients he buys and constant turnover of money. Valentín also has two popsicle stands. He really stressed the need to have one single business, however—"Tiene que tener todo junto en un solo lugar" (you have to have everything together in one place) to avoid running all over to stock and sell at several different locations. His wife and children helped him in the grocery store and continue to do so in the taquería. Valentín wants to establish another taquería, but not in Kandi Mall. He said he has customers lined up to buy and the mall closes at 6:00 pm on Saturday, so he loses business. Here, "business as usual" fails to take into account cultural differences that disadvantage not only customers, but ethnic business owners.

Goat Production and Processing. Resolving the problem of local production and processing of ethnically-desired foods is a complex issue. Both the Latino and Somali communities present a high demand for goat meat, thus a market is assured. Terry VanDerPol of LSP claimed that there is a huge need for goat meat, processing, and appropriate technology. What interviews revealed, however, is that 90% of goat meat is imported from Australia (Roberto Valdéz, Mohamed Bihi, personal communications). Frozen goat meat from Australia or New Zealand arrives in the U.S. by ship and Mohamed Bihi, owner of the Somali grocery store, purchases it from Lincoln Meat in Minneapolis. He alternately makes trips to Minneapolis, or they deliver the meat to Willmar. At the same time that bringing frozen meat from around the world increases transportation and fuel costs, there are nearby goat farmers that would allow goat meat to be purchased locally. However, each of these ethnic groups has different preferences regarding the taste of goat meat. Somalis complain that local goat meat is too fatty for their taste and Mohamed Bihi stated that it costs \$1.00 more per pound to purchase it locally. He pays \$2.10 to \$2.25 per pound if he buys under 25 pounds; if over 25 pounds, he pays \$1.95 to \$2.00 per pound. Goat meat at the grocery sells for \$3.00 to \$3.10 per pound.

Mohamed Bihi has also bought goat meat from Lester Johnson in Grove City. He has both butchered goats himself and had goats butchered at Carlson Meats in Grove City, but the latter no longer processes goat meat. Asked if as a store manager he would be willing to buy local meat rather than meat that had traveled 3,000 miles—he responded with a resounding yes, but explained that there are not enough goats in the area. When he did buy local goats they were about the same price as the frozen, imported goat meat, but they were *fresh*. Even so, given his personal preference for less fatty meat, he prefers frozen goat meat. But when asked about customers' preferences, he confirmed that customers are always asking for fresh meat. To purchase fresh goat meat, there would need to be a place to butcher it—Mohamed Bihi can not butcher goats because he is not certified. Goat meat would make a viable alternative market since it has less fat than chicken, and is leaner, yet contains as much protein as beef.



Soto Goat Farm. One local goat farm, unfortunately, was going out of business in the summer of 2008. Jorge Soto, a goat farmer in Milan for the past 10 years, informed during a July, 2008 interview that he was planning to shift production to sheep. He comes from a tradition of goat raising as his father raised 400 goats

on his 16 hectares of agrarian reform (*ejido*) land in Rebalcito, Jalisco. Jorge began helping his father at age 12. Like so many Mexican farmers that are being driven out by changing economic fortunes related to the global economy, he left Mexico in 1992. He will inherit his father's land but will not return because agricultural prices in Mexico are low and costs are high.

Jorge came to Milan in 1996 and bought his farm 10 years ago. The Milan Bank loaned him money to purchase the 400 acre farm, of which he rents out 115 acres for pasture to a nearby cattle rancher, from whom he receives a percent of the cattle profits. He retains 15 acres of alfalfa for his goats. Eight years ago, he borrowed money to buy his goats. "We eat a lot of goats," he explained. But to purchase goats for family consumption required travel and the cost of purchasing them, so he decided to "raise my own food." For family consumption, he needs one goat per month. Jorge previously bought goats from one of the two Johnson goat farms in Grove City and from Dry Weather Creek Farm that recently went out of business. He explained that Anita Lenka south of Dry Weather Creek Farm also raises goats, as well as another goat farm with 300-400 goats in Dawson. Jorge did not feel that he was in competition with these goat farms, suggesting that demand most likely outpaces supply. But more importantly, ways should be sought to encourage local purchase of goat meat among the Latino and Somali communities, rather than importing it from Australia.

Jorge started the goat farm with four females. He had 60 goats when interviewed in July, 2008 and had sold 50 in the previous few months, totaling 100 during the entire year. At one time he had 100 goats, but said that was too many. Most (about 50) are sold in early fall since kids are born in early spring; goats generally produce two kids, but after the first birth, can have 1-4 births at a time. In July he was attempting to sell 50 goats. Goats sell for about \$70, depending on weight. Does, of which he had 12, are for breeding, and sell for \$90 each, but can run as high as \$100-200. Yearling males weigh about 60 lbs. and sell for \$60; he does not like to sell females for meat as it is more economical to keep them for reproduction. The 23 females he had at the time would produce 80 kids if he didn't sell them. Jorge could increase his herd by breeding two times per year (since they can reproduce every 5 months), but he lacks time and the kids have to be bottle fed.

Most of Jorge's costs are for feed; with 60 goats for example, they are in pasture spring to fall, so there is no cost. Jorge planted pasture seed to grow alfalfa for his goats and two horses, but he does feed the goats a little corn, especially in the winter and when the females are pregnant. In winter, he feeds 5-6 bales of hay per day at \$18 total (for 60 goats). But he pointed out, "I'm lucky because I have pasture." A farmer without sufficient pasture would be spending more for feed. But unlike the Somali complaints that local goats are fatty, he claims his goats are lean. When goats are too fatty, they have been fed too much grain. Jorge needs machinery to cut and bail hay for his goats. He currently has an old tractor, borrows a

baling machine, and pays workers to cut alfalfa. A new tractor would allow him to cut his own hay and to make more profit. He generally sells goats during two periods of the year. With 60 goats, from November to the end of April, his total costs are about \$3,000. His profits for selling 50 goats were \$4,500. He would need 100-150 goats to profit. Concerning his profit, he said, "My family eats pretty much for free."

Jorge slaughters goats and resells them, and although most customers slaughter goats themselves on his farm, some customers take live goats away. This saves Jorge transportation and delivery costs. Somalis who purchase goats from Jorge perform the prescribed *halal* processing on his land. This often requires the Muslim practice of having an Imam present, treating the goat kindly, cutting the jugular vein, and allowing the blood to spill onto the soil. Jorge commented, "I don't understand it." Mexicans buy and he butchers about one goat every other week. While we were talking, someone from Litchfield called requesting to purchase two goats. Customers come from Lewisberg, Litchfield, Madison, Milan, Montevideo, Ortenville, St. Cloud (including about 10 Somalians), and Willmar. Jorge does deliver goats to Noah's Ark meat processing plant near Dawson, but they pay transport costs.

Jorge is unregulated by the state or USDA. In the complex bureaucracy of USDA rules, a restaurant inspector informed me that if a farmer advertises, the sales must be USDA regulated; if there is no advertising, meat from the farm may be sold. He is required to tag the goats' ears. When I asked why they are tagged, he said, "I still don't even understand myself." Jorge does the vaccinations himself and de-worms his goats two times per year, keeping careful records. Goats rarely get sick, however. Would he sell to groceries? "Not really, I'm afraid to get in trouble; if people get sick, I don't have money to pay. I don't want to take that risk." But if Jorge were to sell to a grocery store, then he would be subject to inspection and would have the meat processed in Appleton, or Noah's Ark, the processing plant near Dawson where he works.

Whereas an argument is being made in this assessment for supporting goat raising and goat meat processing, Jorge's farm is not his main source of income. Aside from his job at Noah's Ark (a large-scale kosher meat plant that does process goat meat, buffalo, lamb, elk, and organic beef), he works for other farmers, drives tractors, cultivates, and does spraying to supplement his income. The farmers who employ him grow traditional commodities such as beans, corn, and sugar beets.

A word on labor shortages is relevant here. Noah's Ark, each Friday, slaughters up to 50-100 animals in a day and ships meat all around the country. But even they, like the small processors in Kandiyohi and Grove City, are short of workers. Jorge reported that Noah's Ark can sell only 30% of customer demand because of lack of skilled workers. I suggested that there must be a large number among immigrant populations that could do this work. Jorge explained that Jenny-O contracted most of the workers. Jenny-O pays \$9 per hour and gives benefits, but work shifts are irregular; Noah's Ark pays \$9.50 per hour, but offers no benefits (Jorge recently accrued a huge hospital bill and had no health insurance). Jenny-O employs 1,700 workers, many of whom are Latino and Somali. Thus these large-scale, industrial corporations not only pose stiff competition for local meat processors, but additionally sharpen the availability of skilled labor for the local community-based processors.

In July, 2008, Jorge wanted to sell all his goats and purchase sheep. He advertised on the radio and someone offered to buy two goats, but he refused, indicating that he would only sell a minimum of 10 goats. Sheep, he claimed, are easier to raise. They don't jump, are quiet, weigh more, and bring a better price. But that would change his clientele. Mexicans would not buy sheep, but his boss at Noah's Ark butchers 40,000 lambs per year. Sheep are easier to sell, he said, "and 'Americans' will buy sheep."

The Darin Johnson Goat Farm is located near Grove City. Darin has 120 acres, but uses only a small portion for his 300 goats. Darin's father owns another goat farm outside of Grove City with 350 acres, but it has no grazing land and most of the land (with the exception of 50 acres of corn, 10 acres of hay, and 10 acres of soy) is rented out to neighbors. It would be difficult to rent any of this land to local beginning farmers since most of it is under contract. Unlike Jorge Soto, the Johnsons provide feed, rather than graze their goats. The advantage of grazing goats is leaner meat, but they are more likely to get worms than grain or hay-fed goats. The price of feed, he claimed, was too high, about \$1,000 for corn (the price having risen with greater demand for ethanol), plus concentrate of soy meal at \$150. Darin buys corn from the elevator at \$5.40-6.67 per bushel and grinds his own corn. It takes 25 bushels of corn, 400 pounds of concentrate, and corn cobs from his father's farm to feed them. In addition, he pays \$5-6 per bale for hay, purchasing seven bales per day for 30 days. He does not use ethanol by-products because he does not want to change the goats' feed. In fact, Darin wants to decrease his breeding stock to 100 females (he currently has 200) because of the feed cost. Commenting on skyrocketing costs he stated, "It takes the fun out of it."

Darin has raised goats for 20 years, and only advertises once in awhile, as people can see the goats from the road. People generally come to the farm and buy. In the past three to four years people have bought goats to start their own stock. Before he had dairy goats; he sold does (females) to new dairy farmers, but it became too expensive. The boar goats (uncastrated males) from Texas eat dairy grass. There is an increase in farmers raising dairy goats, and as they have kids, then they no longer come to buy from him. Buyers come from St. Cloud, Willmar, the Twin Cities, Mankato, and a few from Litchfield. Before, more Mexicans came to purchase goats, but now more Somalis come to buy. About five Mexicans and 10 Somalis per month purchase live animals. They may butcher on his farm, and Darin buries the entrails. Somalis bring their own utensils to do *halal* processing. Bihi used to purchase from him, but no longer does because of increased processing costs. The Mexicans tend to take goats away live.

Darin has used local processors. Carlson's used to charge \$50 to butcher. Last fall, he took 40 goats to the French Lake butcher shop in South Haven. He sold locally until last year, but now after January, he sends what is left of his herd to the Jackson sale barn. Darin sells about 50 goats per year locally and takes about 120 to Jackson each year. He would like to sell more locally to save transportation costs. There is a \$6 fee per goat to sell at the sale barn, plus a \$1 yardage fee, and a truckload costs \$2 each: "That's already \$9 off the top. If you can sell it at home, it's \$9 cheaper." Hutchinson also has a sale barn where goats are sold, but they do not bring in as much money there. Last fall goats were dirt cheap and he sold below cost. Nannies, he explained, should be sold by the time they are 50-80 pounds or they get too heavy. Now they sell for \$1.10 per pound, but will go up to \$1.40 in the fall. Seasonality also affects sales. From January to Easter demand is high, but after that it drops

off. During Christmas holidays, he can sell 30 goats on a weekend. Raising goats is not sufficient to make a living and Darin is employed off the farm to supplement his income.

Awareness of local goat farms is often lacking: Mohamed Bihi, for example, did not know of the Milan goat farmer. Double D Farm raises a few goats; Bev Struxness, the owner, explained, "It would be a perfect opportunity for a beginning farmer; that would be a great project." Dry Weather Creek Farm had dairy and meat goats, then transitioned to dairy goats. Support could be given to starting a local business to process goat meat in accordance with cultural standards that would simultaneously support goat farmers and curtail the shipping of frozen meat from Australia. Consumers' money could be kept local and a processing business would create jobs. Of course there are obstacles, some of which are environmental. Mark Stahl of Wick's Meat Shoppe explained that he processed goats years ago but no longer is willing to process goats or sheep. A minor problem, he complained, was the odor. But a major issue for goat meat processing relates to the waste products. Central Byproducts in Long Prairie and Redwood Falls, prompted by an Australian scabies outbreak, will no longer collect the offal of goats and sheep, thus creating a significant disposal problem.

Clearly, the growing ethnic population with its entrepreneurship represents a significant potential for stimulating the local economy. Stimulating ethnic food-related businesses is especially relevant when we consider that Latinos spend proportionally more of their incomes on food and meat than Euro-Americans (Corrie 2008). Policy makers are thus ill-advised to ignore the ethnic market and the contributions of ethnic businesses to the local community. Cultural events, county fairs, farmers' markets, and similar events all provide venues for sales of ethnic foods. While there is a huge explosion of the underground market, with people selling tamales, crafts, and so forth on an informal basis, establishment of a multi-ethnic farmers'-type market and community gardens in ethnic communities could further enable income generation and healthy eating.

One of the limitations in promoting the availability of culturally diverse and desired foods is the fact that many products are imported, as they can not be produced in Minnesota. It would thus be wise to focus on those products that could be grown and produced in the area. Pinto beans, for example are an important commodity in the Latino community and could be grown locally for local sale and consumption. Women belonging to the Raíces Colectivo complained that quality tomatoes—an important ingredient in Mexican foods—are often not available. A community garden would provide opportunity to grow non-genetically modified tomatoes for family use or even to supply local Mexican food restaurants. County extension could offer classes on canning to make tomatoes available year-round. Grants could be sought to support fledgling WAMM businesses and a tortillería. Other efforts should be directed at promoting farming, especially among ethnic groups with previous experience in agriculture. Organic corn for locally-produced tortillas, local pasture-fed goats, and small-scale meat processors to process goat meat would all meet the needs of ethnic populations of the region. To promote the entry of new farmers among recent migrants, for some of whom their dream is to locate available land at an appealing price and farm it, will enhance local production. But new farmers also need a guarantee that they can sell their product. Growing crops with high cultural demand and making connections between farmers and markets—such as ethnic grocery stores, restaurants, and processors—can enable this dream to be realized.

ASSESSMENT RECOMMENDATIONS

This assessment report offers ample detail on assets present in the local food system, efforts in place to enhance production, distribution, and consumption of local foods, obstacles to that process, gaps in our information, and absence of practical activities to promote the local food system. From the above material, the steering committee and other interested parties can derive abundant ideas and suggestions for future action. It is not the intent of this section to reiterate the above information, but to provide critique, point out potential directions for the future, and provide a framework for implementation. Obviously, pursuing every possible avenue is neither feasible nor advisable, nor are all possibilities for action contained in this assessment. The path taken will of necessity require selection among a few options and acting on those that will provide the most benefit.

Assessment of the Kandiyohi County Local Foods Project

The Kandiyohi County Local Foods steering committee came together in 2007. A member of IATP in the Twin Cities initiated interest and generated much excitement for this project. It is our opinion that subsequently much of the impetus for bringing the project to fruition faded. Through many conversations with stakeholders, it became apparent that some participants: a) held vague understandings of what was to be accomplished, and b) the community did not come to “own” the project. What is needed to act on this assessment is a clearer understanding of project goals and a renewed aspiration to actively pursue ways to accomplish the original goals, but more importantly, true *community participation* has failed to materialize. A broader range of community members must become involved to create the synergism necessary to generate real change. Suggestions on how to bring that about will be presented below.

To date, most efforts revolve around discussions at steering committee meetings which have become less well attended over time. What is needed to create community awareness of the local food project and get people involved is to hold regular, frequent events at different venues and times that will educate, get people involved in particular projects, generate discussions among diverse actors, and celebrate local foods. In July 2008, the steering committee planned a public event with Ken Meter of the Crossroads Resource Center presenting “Growth in Local Food Economies: Trends and Indicators.” Culinary Seasons catering service provided a local foods breakfast. A summary of participants’ responses to the event revealed overwhelming interest in community activism and interests were identified in three areas: 1) personal—changing personal behavior by buying local and educating themselves; 2) advocacy—encouraging others to buy local and actively advocating local foods to institutions, county officials, and aiding the assessment process; 3) support of specific projects, in particular greenhouses and farmers’ markets (the full report may be found in Appendix E).

An important opportunity was missed by not planning follow-up events in a timely manner that could have built on this expressed interest and engaged more community participation. One observation is that too much effort of the steering committee has been on meetings of committee members with little effort to engage a wide range of community members. The

various branches of the Regional Sustainable Development Partnerships (2007) achieve success through a **community engagement model**. While this model is applied by the partnership board in working with local communities, the implementation of a local foods system demands the same collaborative relationship based on **citizen-driven participation**. Development of citizen leadership is part of the process of project development as well as an outcome. Community members must be involved, become engaged, as they develop new leadership skills. *Experience has shown that “people tend to be more actively involved and invested in the projects... than those of typical groups where people attend meetings and perhaps make a comment and go home.”* Moreover, the Partnership’s strategy is to “actively foster citizen leadership by providing real opportunities for people to work together on projects crucial to their well-being” and foster diversity so that “when these new and different stakeholders come forward, with a diversity of backgrounds, interests, and perspectives, the work is energized and enriched.” It becomes clear that **the means to achieve a sustainable local food system is as crucial as the outcome**.

Resources

While the above comments represent a critical perspective, there are many assets and strengths in the region to draw on. Very capable, skilled people with critical knowledge are involved in implementing the local food system. There is much excitement and interest in promoting local production, processing, distribution systems, marketing, and consumption of local foods. This **human capital** of knowledge, skills, organizing abilities, and activism must be recognized and brought into active involvement. The **resources** to generate a strong, vibrant local food system include the Kandiyohi County Local Food System Steering Committee, community leaders in organizations such as Heartland Community Action Agency, Kandiyohi County Public Health, United Way, WCRSDP, WAMM, the West Central Integration Collaborative, the Coalition of African Community Services, the Land Stewardship Project, Ridgewater College, the Economic Development Association, County Extension, the BRE Leadership Task Force and members of its visitation team, the Sustainable Farmers’ Association, local farmers, grocers, restaurant owners, local churches, and a myriad of other possibilities. The first step will be to recruit at least one active member from each of these groups to commit their time and labor to the project.

Important initiatives in the county and surrounding regions suggest important assets to build upon. Passionate, dedicated farmers are seeking to reverse the trend in rural decline and to create more healthy eating habits as they practice stewardship of the environment. A Beginning Farmers’ program is training new farmers to enter and practice sustainable agriculture. Strides have been made in the Farm to School program and the education of children on healthier foods. Farmers’ markets offer face-to-face relationships between farmers and consumers. Impressive efforts are creating multicultural markets to meet the food demands represented in our culturally diverse community.

In terms of material resources, assessment findings show there is a clear demand for local food (farmers’ market surveys, farmers, CSAs, grocers, etc.) and demand far surpasses supply. Kandiyohi County and surrounding areas represent a rural agricultural base. There is much agricultural and urban land that could be identified for conversion to sustainable production. Empty buildings, a product of the decay of rural communities, could be made available for food processing, distribution, and sales. The “Buy Fresh, Buy Local” logo is a material symbol that can be used to promote consumption of local foods. Policies, such as

new additions to the Farm Bill, are in place to help local farmers. There are grants available to support local, sustainable development and new farmers. Below are listed only a few:

- The **Community Food Projects Competitive Grants Program** was first written into the farm bill in 1996. Organizations in 45 states have received 243 grants through this program, ranging from \$10,400 to \$300,000. Such grants funded proposals to make healthy food available to low-income areas, trained youth and adults in food production and marketing skills, or supported food-related businesses. Pothukuchi (2007) identifies this grant as “a **flagship resource**” for local food projects.
(http://www.csrees.usda.gov/nea/food/in_focus/hunger_if_competitive.html).
- **The USDA’s Rural Development Mission** targets resources to projects through guaranteed loans, direct loans, grants, and intermediaries. Projects include Water and Wastewater Loan and Grant Applications, the Value Added Product Grant (with 10% reserved for disabled and socially disadvantaged farmers), and the Rural Micro-enterprise Assistance Program. These grants aim to attract and retain residents and businesses to rural areas by improving access to technology, services, and new markets, both locally and regionally. A \$15 million grant for a new Rural Entrepreneur and Micro-enterprise Assistance program provides technology and financing to support small businesses with fewer than 10 employees.
(http://www.enebuilder.net/farmpolicyfacts/e_article001258899.cfm?x=b11,0,w).
- **Title VI extends Rural Business Opportunity and Rural Cooperative Development** grants designed to give job training and establish centers for rural cooperative development; it also extends the Agriculture Innovation Center Demonstration Program, a program that provides technical, outreach and marketing assistance to value-added agricultural businesses. The federal Farm Bill can be a source of federal money to help students eat local produce. In the past, schools bidding for cafeteria products were not allowed to specify geographic preference. Now, the Farm Bill allows them to specify preference for local foods.
(http://www.enebuilder.net/farmpolicyfacts/e_article001258899.cfm?x=b11,0,w).
- **The Southwest Initiative Foundation** has provided \$444,000 in funding to 501(c)(3) nonprofit organizations for local community projects focused on entrepreneurship and connected communities. Grants help leaders, teams, and nonprofit organizations, improve their communities, based on a core belief in good leadership, citizen engagement, capitalizing on our local and regional assets, and connecting resources within the communities and region (<http://www.swifoundation.org/grants.html>).
- **The Land Stewardship Project** offers some scholarships for the Farm Beginnings Program (<http://www.landstewardshipproject.org/farmbeg.html>) and **Farm Service Agency (FSA)** makes and guarantees loans up to \$300,000 to beginning farmers who are unable to obtain financing from commercial lenders
(http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=pfs&newstype=prfactsheet&type=detail&item=pf_20090101_farln_en_beginloan.html).
- **The Mid-Minnesota Development Commission** provides gap funding where initiatives will result in job creation. Donn Winckler, Executive Director of MMDC, pointed out that if local food efforts are to receive grant support, they must demonstrate that they will create jobs. Proposals must then be able to demonstrate the synergistic ways that local food initiatives will stimulate the local economy through supporting multiple employment opportunities.

While there are many resources to draw on, there are gaps and obstacles in the way. The fact that demand for local foods is an asset also points to a gap in supply. There are few local, sustainable farms in the area and only one organic farm in Kandiyohi County. There are a few community gardens but more are needed. Getting food from farm to consumers, schools, and markets presents another gap since infrastructure and organization for efficient distribution are missing. Farmers, processors, marketers, schools, and social service organizations face serious obstacles in the competition with industrial agriculture and its subsidized commodity crops. Where food is provided to school children and people in need, it is rarely local. Moreover, USDA regulations inhibit value-added production and processing of local foods. While rising costs for farm inputs and animal feeds is an issue, there is a huge gap in data to convince development agencies and grant funders that sustainable local food initiatives are financially feasible. Financing for local development projects is sparse. A growing dependence on fast-food and processed food indicates a knowledge gap about the relationship of our eating habits to serious health consequences. Finally, a knowledge gap prevents a significant portion of the local population from purchasing local foods. Education about the externalities associated with conventional agriculture and the benefits of local foods is needed. These deficiencies in the local food system suggest multiple possibilities for activities and action.

Activities

Organization. The task of the steering committee is now to use the data presented in this assessment report as a basis for creating strategies to bring about the intended local food system project's goals. This will require forming an organizational structure and selecting activities to best meet those ends. The diverse actors, interests, and roles of those involved in the local foods project suggest that a central, unified organization for carrying out activities may not be the best choice. As people come together to discuss, plan, and take action, their interests may be too diverse to achieve effective results. A possible alternative would be to create interest groups, or sub-groups, within the broader project. Having a narrower focus and pursuing a common goal will create more stable, dynamic groups than a single organizational structure. Only a few possible sub-groups are offered here as suggestions:

- Enabling the creation of new sustainable farms
- Creation of a farmers' marketing association
- Establishing an indoor market building for year-round food sales
- Generating new community gardens and greenhouses
- Increasing local food consumption in schools
- Supporting the start-up of a local goat meat processor
- Obtaining a grant for a new tortilla factory
- Web site development for the local foods project
- Promotion of a local foods policy

Each sub-group would carry out complex plans and activities to bring their project to fruition. Focusing on a particular project would make the task more manageable, create closer social networks among participants, and aid in developing leadership skills. The WCRSDP Assessment Report, based on research conducted by UMM professors Engin Sungur and Jon Anderson (2005), concluded that many projects fail because they become mired in too much evaluation, discussion, planning, information gathering, workshops, feasibility

assessments, and other low-impact activities. They argued that to be successful, a project needs concrete potential outcomes. Such a conclusion suggests choosing among a wide range of possible avenues of approach and selecting the several that are most feasible to attain and moving from planning to *action*. The number of sub-groups, and thus sub-projects should be limited, perhaps to several of the most pressing issues, to prevent the project from becoming unwieldy.

If this organizational option is selected, it will be incumbent on the current steering committee to draw in people who play diverse roles in the community, so that each sub-group includes farmers, business people, developers, agency representatives, consumers, members of various ethnic groups, etc. An achievable first step would be to realize the establishment and commitment of at least one urban farm, one CSA, one farmers' market, and the willing cooperation and support of each agricultural-related organization in each community of Kandiyohi County. This goal should not be exclusive of efforts in surrounding counties. Arguments can be made regarding the definition of "local," but establishing arbitrary boundaries will hinder promotion of local foods and can serve to push away other relevant actors who are interested in collaboration. Above all, creation of a sense of community identity among players in the food system will be critically essential. Furthermore, promotion of leadership opportunities can add dynamism to the process (Garrett and Feenstra 1999).

Ideally, an individual would be hired to dedicate full time to the task of coordinating the various sub-groups. Alternatively, several volunteers could form a task force to accomplish this end. To achieve coherence in the project, monthly or bi-monthly events would bring all participants together to share their experiences and knowledge. It is the conclusion of this assessment that bringing all participants together is essential to creating a sense of community and purpose in meeting the broader goals of the local foods project.

Education will need to be an important component in the process of strengthening the local food system. Monthly or bi-monthly events, in addition to bringing all parties together for meetings, can provide an important venue for education. Speakers could include educators from Ridgewater College, agencies and organizations that work directly or indirectly with food issues, farmers, and others. A film series has been proposed and the steering committee held the first film event in January, 2009. These should be well publicized to draw in community members, educate the public about the repercussions of the conventional food system and the possibilities for alternative development models, generate discussion, and inspire action. Diverse actors (farmers, marketers, developers, consumers, etc.) should be present to generate reactions from different perspectives. Possible films include:

- The Organic Opportunity (Iowa's successful local foods project in Woodbury County)
- What Will We Eat? The Search for Healthy Local Food (background on the industrial food system and efforts to create alternatives)
- The Future of Food (issues related to the conventional food system)
- Troublesome Creek (one family's experience with the farm crisis)
- Harvest of Fear (biotechnology)
- High Tech Harvest: Biogenetic Foods (biotechnology)
- Huichols and Pesticides (risks associated with agrichemical use)
- Deconstructing Supper (food safety issues)
- Diet For a New America (food and health issues)

- Frankensteer (CAFOs and meat processing)
- Not for Sale (farm subsidies and patenting)
- The Power of Community: How Cuba Survived Peak Oil (sustainable agriculture)
- Farmers and Their Diversified Horticultural Marketing (organic farms, CSAs, farmers' markets, etc.)

As participants in the local foods project pursue their activities, the inter-connections between the various parts of the local food system must be kept in mind. Outputs from the success of one effort, such as creation of a new locally sustainable agricultural unit, then become the inputs for another, such as a local meat processing business or grocer who dedicates a small portion of their merchandize to locally-produced foods (Pothukuchi 2007). Economic development, sustainable environments, nutrition and health, social justice, and cultural diversity are all linked in intricate and multiple ways.

- Identify 6-12 specific individuals willing to serve on the newly-created task force.
- Establish a list serve to enable communication and sharing of information between the task force and sub-project groups, and among all interested and involved parties.
- Develop a Local Foods web site with information on: importance of local foods, health and nutrition, local sustainable farmers, farmers' markets, food-related organizations, groceries and restaurants that feature local foods, advice for consumers, food seasonality guide, recipes, etc.
- Network with Pride of the Prairie to collaborate, communicate on local foods initiatives, and share in planning events such as the Home Grown Economy conference.
- Form a new joint committee with the Kandiyohi County EDA agricultural committee with a potential new direction for the EDA sub-committee to supplement work on industrial agriculture with addressing small farm issues and local foods development

Economic Development. As illustrated in this assessment report, local enterprises keep money in the local economy. The dominant agricultural system relies on substantial subsidies to large-scale agriculture for production of commodities that result in an economic drain on local communities, pose threats to environmental sustainability, support foods that contribute to growing health risks, create socioeconomic disparities between small-scale and large-scale producers, and contribute to loss of diversity in our food system. This system is entrenched in policies that marginalize small-scale sustainable production and through disparities in wealth and scale that squeeze out small farmers, processors, and marketers. The Kandiyohi County Local Food System project, like others that have emerged around the country, can create spaces for alternatives that support local, vibrant economies. There are various paths to achieve this end, some of which have been suggested in the assessment results:

- Promote policies for local grocers and restaurants to stock 2% of their merchandize with local foods

Markets that distribute locally-produced food generate economic activity. Rob Marqusee explained that Woodbury farmers develop a product with the Sioux City Sioux logo and store managers are convinced one product at a time to stock these items. The manager must be convinced that if price is equal or slightly higher, that the quality is superior. When the new

local food product is brought out, there is media coverage of the event. People then come to recognize the logo. Farmers could use the “Buy Fresh, Buy Local” logo or create their own logo. Woodbury County pays for the design of logos for farmers. Restaurants could advertise featured local foods in their windows and on their menus.

- Establish a new micro-enterprise based on local foods

New businesses are a primary means to stimulate economic growth. The County Commissioner, Board of Supervisors, and development agents should be brought together to support infrastructure and financing for new micro-enterprises, such as value-added food products or a local foods restaurant. Locally produced meats require processing and most processing is now out-sourced to large-scale enterprises such as IBP. The creation of a new local processing plant, along with training programs for butchers would provide added economic stimulus.

- Establish a year-round farmers’ market building and support expansion

Farmers’ market survey data show that farmers’ markets could be enlarged, better advertised, reach more diverse populations, and serve as educational venues. Woodbury County’s Floyd Boulevard Market, located in an abandoned firehouse, increased food sales and serves as a community cultural center. Entertaining educational events that coincide with market days would draw in more consumers.

- Seek grant funding to facilitate the opening of a local dairy

The dramatic loss of dairies documented in this report could be ameliorated by establishment of a local dairy that supports local families, offers new jobs, and augments commercialization of dairy products. Milk, cheese, and other dairy products could be marketed to local stores, sold at farmers’ markets, utilized in restaurants, and aid in the farm to school program.

Sustainable Environment. This is an opportune time to take advantage of the increasing interest in local production and sustainability. A number of local farmers are leading the way in organic production, creation of CSAs, and greenhouses. Programs are in place to facilitate the entry of new farmers and there is substantial interest in direct sales from farmers. However, strategies for action will need to confront competition with subsidized commodities, weak mechanisms to get local foods into schools, groceries, and other markets, and countering the environmental damages created by industrial agriculture. Only a few among a number of possible activities are listed below:

- Set a goal to train new farmers and establish five new small-scale, diversified farms

With too few farms providing local foods, project participants should work closely with LSP’s Farm Beginnings Program to identify potential new farmers, support their efforts to learn organic methods, and locate available farmland (perhaps tapping into renting small portions of fields in commodity production or arranging rental with elderly ex-farmers who currently rent out their land). These farmers can be encouraged to take on interns for training a new generation of farmers.

- Implement a local foods procurement policy

Modeled on Woodbury County's food procurement policy, establish guidelines for schools and other county institutions to purchase 5% of their foods locally, when feasible. This will support an increase in new farmers, draw those who have left back to the region, improve the health of consumers, and effect greater stewardship of the environment. According to Garrett and Feenstra (1999), community food systems projects are most stable and successful when they combine project and policy work.

- Implement a region-wide organic tax rebate policy to supplement support in the Farm Bill

Another of Woodbury County's efforts was to increase the production of organic foods. The property tax rebate has encouraged conventional farmers to switch to organic production. Because conversion can involve a three-year period, deferral of taxes can make the transition financially feasible. Such a policy could encourage, yet not require, certified organic production.

- Expand the number and size of community gardens and greenhouses

The zoning commission and local authorities can be instrumental in identifying spaces for community gardens—both urban and rural. Individuals with garden space may be willing to rent out portions of their yards. The county could offer incentives to those with available land and for participation in gardening. Promotional activities will be essential in attracting more people to community gardening. A goal could be set, e.g., a minimum of one children's garden at each school. The demand for gardens in Latino communities should not be neglected. The extension office could organize workshops on preservation of seasonal foods for year-round availability. Obtaining a grant to support the development of at least one greenhouse would help to circumvent shortages (and thus import of non-local food) during the off-season.

- Establish a farmers' marketing association

One of the stickiest problems in direct farm purchases is the unpredictability of available foods, time consumed in locating them, and having to deal with multiple farmers to fill consumers' needs. An association or cooperative that centralizes all information on what products are available, seasonality, and where those products can be procured would enhance the ability of schools, restaurants, groceries, and so forth in utilizing local foods. A web site could connect farmers, markets, and consumers by providing this information, along with links to existing farms that would educate the public on production practices, advice on selling and buying at farmers' markets to increase local food sales, and recipes on how to prepare the foods originating on local farms. Expanding current cooperation on distribution of various farmers' products would reduce fuel costs and time investment.

- Build a biodigester and create composting facilities

While there is much interest in biomass for alternative energy creation, the county produces substantial animal, farm, food establishment, and household wastes. A community composting facility could provide low-cost, non-chemical fertilizers to local farmers. A

biodigester would transform environmentally damaging animal wastes into fertilizers at relatively low cost.

Nutrition and Health. A sizeable portion of the population has become accustomed to less healthy fast foods and labor-saving processed products that cause loss of food preparation skills. The result is an epidemic of obesity, diabetes, and other food-related health ailments. Genetically modified foods produced with heavy reliance on chemical fertilizers, herbicides, and pesticides pose not only known, but unknown health hazards as well.

- Incorporate food health issues into the school curriculum

Working together with state guidelines, individuals with expertise on the impact of the conventional farm system, the benefits of sustainably-produced foods, and issues of health could prepare a curriculum and educate teachers on its implementation. The curriculum (preferably in conjunction with school gardens) could incorporate educational materials to be sent home with children. School web sites could also be adapted to present information on health and nutrition as it relates to healthy eating.

- Sponsor community educational events to inform the public on the costs and risks of unhealthy eating

Awareness of the costs and risks of conventional agriculture and heavy dependence on fast-foods is an essential prelude to changing individual attitudes and behaviors. Combining these events with dynamic public speakers and films would increase attendance. Topics at different events could focus on obesity, diabetes, heart ailments, the hidden costs (externalities) of our food system, etc. Meetings could take place at the local hospital, churches, public health office, and Ridgewater College, among other venues.

- Partner with the hospitals (Rice Memorial Hospital and Willmar Regional Treatment Center in Willmar, Renville County Hospital in Olivia, Paynesville Area Hospital in Paynesville, Meeker County Memorial Hospital in Litchfield) to purchase local foods for patient menus.

While the assessment process did not involve interviews at health facilities, personnel at health care facilities would serve as primary agents in implementing local foods, particularly where patients suffer food-related diseases. As they incorporate local foods, they could also be an important means of transferring knowledge about healthy diets.

Social Justice. Willmar and Kandiyohi County represent a significant portion of the population that experiences low income levels and high numbers of people who fall below the poverty line. Particularly at risk are children, the elderly, and ethnic populations. Whereas a number of social service agencies address these problems, more could be done.

- Establish a policy for local food procurement by food distribution agencies such as the Willmar Area Food Shelf, Heartland Community Action Agency, and others.

Food distribution organizations rely heavily on government commodities that may provide filling, but less healthy food choices for less-privileged sectors in the local economy. Working with the agencies to identify ways to incorporate more local foods would be an important first

step. A portion of these needs may be met by connecting local farmers to these distributional networks. Incentives for clients to participate in community gardens would prove both educational and supplement industrial commodities with healthier local foods.

- Locate a current vacant building for food distribution

Ideally, the same building used for a new year-round farmers' market could be used for food distributions by various agencies. Most importantly, a storage facility would allow Fare Share to resume deliveries to the area. At the same time, an agreement with Fare Share to increase provision of local foods would stimulate local farm production and connect farmers to disadvantaged clients.

- Create children's gardens at each Head Start site

Children who attend Head Start are from disadvantaged families. Location of nearby garden space and involving children in producing food for their own breakfasts and lunches would socialize them to appreciate and consume healthier foods. This could also reduce costs of meals provided to children.

Cultural Diversity. The presence of growing populations of Latinos, Somalis, and other ethnic groups in the county and surrounding regions demands attention to cultural diversity. WAMM provides technical support and an organizational framework for many ethnic businesses, including grocery stores, restaurants, and value-added foods. A significant element in cultural identity revolves around culturally-defined foods. Yet, much of this food, whether goat meat, chilies, or Egyptian dates, is imported. Leaders in these communities are skilled at organizing micro-enterprises and enthusiastic about promoting culturally diverse foods. Incorporated as participants in the Kandiyohi Local Food System project, multiple strategies would support their efforts:

- Support the start-up of new farms managed or owned by representatives of ethnic groups in the community

Much of the Hispanic/Latino population that emigrated to the U.S. or are descendants of immigrants came from rural, agricultural backgrounds. The predominant source of employment for many of these individuals is in large-scale dairies, the Jenny-O turkey processing plant, and similar occupations. While the social background differs from the Somali population (which is less inclined to farming), findings of the research demonstrate that there are individuals who would like to return to agricultural activities. Locating grant funding to support new agricultural entrepreneurs, facilitation of land acquisition, and training would generate employment for farmers and hired workers and could provision the local food economy with culturally desired foods (e.g., tomatoes, pinto beans, corn, etc.). Sales to local groceries, restaurants, and farmers' markets would stimulate the economy.

- Establish a new small-scale goat meat-processing plant

Both Latino and Somali populations show strong demand for goat meat, yet imported goat meat from Australia and lack of local processing facilities inhibits goat farmers and local purchases. A USDA approved facility—perhaps funded by one of the USDA micro-enterprise

grants—could incorporate the *halal* processing required by the Muslim population. Raising goats, processing, and sales could make an important contribution to the local economy.

- Obtain economic development funds for the acquisition of a facility and purchase equipment for a tortillería (tortilla factory)/kitchen facility and supplement access to raw materials by supporting organic, non-GM corn production.

Large amounts of tortillas are purchased from supermarket chains in the area, draining money out of the economy. Members of Raíces Colectivo are interested in entrepreneurship; some of its members now provide tamales and other ethnic foods for local cultural events or sell them on an informal basis. Lacking a USDA approved facility, a building that can be rented or acquired could be located for this initiative in order to provide new sources of employment and stimulate *local* sales of these culturally defined foods.

- Promote more ethnic foods in school lunches

There are a number of organizations (e.g., West Central Integration Collaborative, Coalition of African Community Services, Latino Service Providers, etc.) that could tap resourceful individuals in the community who could advise on the preparation of ethnically diverse foods (with recipes, advice on preparation) for school menus. Perhaps not all, but some of the ingredients could be obtained from local farmers, thus enhancing the farmer-consumer relationship.

Activities incorporated into the *local foods process* will make great strides in meeting the steering committee's goals to: provide for food emergencies, increase opportunities for farmers, distributors, and consumers, preserve local and natural resources, educate residents to take action in creating a sustainable local food system, and provide the education and skills necessary to ensure access to food and improved nutrition. Taken together, these efforts should create a sense of community identity and networks of solidarity, promote leadership skills among actors, and publicize ongoing efforts to engage more public interest and participation. Occasional celebrations that feature the local food system (e.g., a local food feast or multicultural food festival) are also important components of the process.

Outputs

Successful projects demand ongoing evaluation. As suggested by the assessment's logic model (p. 20), this assessment has mapped assets and needs, recommended organizational strategies and activities, and presented them as an assessment report. The steering committee will define other outputs, such as meetings, workshops, film festivals, promotional activities, policy documents, and celebration of accomplishments. It is imperative that outcomes—activities brought to fruition—be evaluated.

Outcomes

The activities undertaken will produce outcomes that require evaluation on the basis of the degree to which the local economy has been strengthened, the attainment of new agricultural, environmental, and nutritional knowledge and skills, measurements of increased local food production and consumption, and implementation of policies that foster a local,

sustainable, healthy food system. Careful attention to how each of these will be measured will provide valuable information for future reflection and action. Methods or instruments should be devised to determine **improvements** in consumers' and farmers' knowledge concerning sustainable food systems, the emergence of new attitudes that lead people to support the local food system, and changes in behavior that result in more local food production and consumption (see p. 20-21). As these outcomes are assessed, attention should be directed to **individual** knowledge, attitudes, beliefs, and behaviors, **interpersonal** dynamics as people collaborate in participating in the local food system, **organizational** frameworks, development of **community** networks, and modifications to **public policies** that enhance sustainability (see pp. 22-23). Illustrations for assessing future outcomes may be found on page 23 of this assessment report. The ultimate activities and outcomes may differ, but it will be most important to apply the principles of evaluation suggested in the model. With the many assets and opportunities available, the potential for success is indeed achievable.

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Appendix A. Farmers' Market Merchant Surveys



Farmers' Market Merchant Survey

This survey is being used to get your opinions on this market so we can improve it for you and other merchants. We are interested in your honest answers. Please do not put your name on this survey. Your answers are completely confidential.

1. How long have you been selling at the Becker market?
 _____ weeks OR _____ months OR _____ years

2. How often do you operate a stand at the Becker market?
 Once a week Once a month Once a year
 2-3 times per month Several times a year Other _____

3. Please identify the products that you are selling today (please print).

4. About how far did you travel to get your goods to market today?
 _____ miles (one-way)

5. What community do you live in or nearest to? _____

6. Please rate each of the following aspects of selling products at this market.

	<u>Excellent</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Don't know</u>
a. Location of this market for attracting customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Hours of operation of this market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Advertising for this market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Management of this market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Expense of operating a stand at this market.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Ease of getting your products to your stand.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Overall quality of products sold at this market.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. To what extent has the Becker market helped you make a living at farming/ agriculture?

	<u>A big</u>	<u>A moderate</u>	<u>A small</u>	<u>No</u>	<u>Don't</u>
	<u>difference</u>	<u>difference</u>	<u>difference</u>	<u>difference</u>	<u>know</u>
Does it make	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. What do you like best about selling at the Becker market?

9. What do you like least about selling at the Becker market?

OVER

10. Please indicate below changes you have experienced through participation in the Becker Market.

Because I operate a stand at this market ...

	<u>Strongly</u> <u>agree</u>	<u>Agree</u>	<u>Disagree</u>	<u>Strongly</u> <u>disagree</u>	<u>Don't</u> <u>know</u>	<u>Not</u> <u>applicable</u>
a. I have developed new products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I have learned new farming skills.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I have learned more about organic farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. I have learned more about running a small business.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. I have earned more income from farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I feel better about my future in farming..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. I have developed a larger customer base.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. I am more able to provide food for my family and myself.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Approximately how much gross income do you typically make in a day at the Becker market?

- | | |
|--|--|
| <input type="checkbox"/> less than \$100 | <input type="checkbox"/> \$400-\$499 |
| <input type="checkbox"/> \$100-\$199 | <input type="checkbox"/> \$500-\$749 |
| <input type="checkbox"/> \$200-\$299 | <input type="checkbox"/> \$750 or more |
| <input type="checkbox"/> \$300-\$399 | <input type="checkbox"/> Don't Know |

12. What other types of direct marketing assistance could the Becker Market provide to you and other merchants?

These last questions are about you and your family. The information is confidential and will only be used to provide demographic characteristics of marketers

If you are not a gardener or farmer, please skip to question 16

13. How many acres do you garden or farm?

- 3 acres or less
- 4 to 6 acres
- 7 to 9 acres
- 10 acres or more

14. During the growing season, are you employed full-time or part-time as a farmer/food producer?

- Self-employed, full time
- Employed by someone else, full time
- Self-employed, part time
- Employed by someone else, part time

15. Do you also grow commodity crops or have a feedlot? Please identify these:

16. To help us understand cultural food preferences, please identify your ethnic, cultural, or geographic background:

17. To help us understand how economics shapes food preferences, please indicate your income category:

- Under \$9,000
- \$9,000 - \$14,999
- \$15,000 - \$21,999
- \$22,000 - \$27,999
- \$28,000 - \$35,999
- \$36,000 - \$49,999
- \$50,000 or more
- don't know

Thank you!

ANALYSIS OF MARKET DATA – MERCHANTS

Frequencies, Becker & Saturday market merchant surveys

#1 How long have you been selling at the market?

	Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20 or more years	Total
Becker Market	8	1	6	4	0	0	0	0	0	19
Saturday Market	2	1	1	2	1	4	4	1	2	18
Total	10	2	7	6	1	4	4	1	2	37

In the few years since it began, 11 vendors have returned to sell at the Becker Market and 8 were new this year. Fewer new vendors turned in surveys at the Saturday Farmers' Market and 61% have been selling at the market for 5 years or more. These data do not represent all merchants as not all who were given surveys turned them in. Given missing data, it would be useful if records are kept of past years to analyze these for patterns of retention and attracting new vendors.

#2 How often do you operate a stand at the market?

	Weekly	2-3 times/month	Monthly	Several times per year	Once a year	Other	Total
Becker market	12	2	0	4	0	6	19
Saturday market	16	1	0	1	0	1	18
Total	28	3	0	5	0	7	37

Most market merchants (75.8%) sell on a regular, weekly basis, a fact that speaks strongly for interest in selling at the farmers' markets.

#3 Products you are selling today:

	Vegetable	Fruit	Dairy	Meat	Bakery	Preserves	Meal	Processed	Other
Becker market	6	1	1 (eggs)	2	3	1	1	4	14
Saturday market	12	0	0	3	9	7	0	1	7

These data do not represent all items sold at the markets; moreover, many vendors sold items in multiple categories (8 at the Becker market and 13 at the Saturday market). Counts represent how many vendors sold each category of item (there were 19 Becker marketers and 18 Saturday marketers who returned surveys). Clearly, the Saturday market is a more important venue for selling fresh vegetables (31.6% of Becker market vendors vs. 66.7% for Saturday market vendors).

- Vegetables included a wide variety: beets, broccoli, cabbage, carrots, corn, cucumbers, garlic, green beans, beets, herbs, kohlrabi, lettuce, okra, onion, pea pods, peas, peppers, potatoes, spinach, squash, string beans, and zucchini.
- Meats included beef, buffalo, chicken, elk, jerky, and pork.
- Bakery items included artisan and other homemade breads, cookies, donuts, and pies.
- Processed foods not including preserves (apple butter, jams, and jellies) consisted of candy, canned goods, horseradish, lemonade, pickles, popcorn, salsa, and truffles.
- Many vendors sold non-food items (listed as “other”): artwork, bird feeders and baths, dishes, flowers, games, ice, jewelry, pet items, wooden items, and woven items (hats, potholders, purses, scarves, tablecloths, towels, etc.).

In summary, given the low number of vendors, a wide variety of items were offered, especially fresh vegetables and non-food items. Several customers remarked that they preferred only food items at the markets.

#4 How far did you travel to the market today?

	0-1 mile	2-4 miles	5-9 miles	10-14 miles	15-19 miles	20-29 miles	30-46 miles	Total
Becker market	2	2	1	2	6	4	2	19
Saturday market	0	3	4	1	3	5	2	18
Total	2	5	5	3	9	9	4	37

While distances vendors travel to sell their goods at the markets varies from a few blocks to 46 miles, the average distance for Becker Market vendors (16.63 miles) and Saturday Farmers' Market vendors (16.72) is practically the same.

#5 What community do you live closet to?

Community	Becker Market	Saturday Market
ATTWATER	0	1
BIRD ISLAND	0	1
CLARA CITY	2	0
FAHLUN TWNSHP	1	0
KANDIYOHI	1	0
KERKHOVEN	3	1
LAKE LILIAN	0	1
MONTEVIDEO	1	0
NEW LONDON	2	1
OLIVIA	1	2
PENNOCK	2	1
SPICER	0	1
SUNBURG	0	1
WILLMAR	5	7
RAYMOND	0	1
NOT ANSWERED	1	0

The highest frequency of market merchants come from Willmar. Promotion of market sale opportunities in surrounding communities not only would be consistent with customers' desires for larger markets, but would increase participation by farmers and gardeners in the region who are unfamiliar with the farmers' markets. Information about farmers' markets in smaller communities in the regions comprises an important gap for which information should be obtained and used to promote a region-wide farmers' marketing system.

#6a Rate the following aspects of selling at the market:

Location of the market

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	16	43.2	6	31.6	10	55.6
Good	20	54.1	12	63.1	8	44.4
Fair	1	2.7	1	5.3	0	0.0
Poor	0	0.0	0	0.0	0	0.0
Total	37	100.0	19	100.0	18	100.0

Whereas almost all vendors rate the market location as "excellent" or "good," 24% more rated the Saturday Farmers' Market as "excellent." This is somewhat surprising given the more central location of the Becker market and may suggest that farmers find it easier to access the Saturday market which is further from the center and close to a major thoroughfare.

#6b Hours of operation of the market

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	13	35.1	4	21.0	9	50.0
Good	22	59.5	13	68.4	9	50.0
Fair	1	2.7	1	5.3	0	0.0
Poor	1	2.7	1	5.3	0	0.0
Total	37	100.0	19	100.0	18	100.0

In terms of hours of operation, Saturday vendors also ranked "excellent" more frequently than Becker vendors. Even so, 100% of Saturday vendors ranked the hours "excellent" or "good," and 89.4% of Becker vendors did so. Some would like extended hours for both markets.

#6c Advertising for the market

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	13	35.1	4	21.1	9	50.0
Good	10	27.0	5	26.3	5	27.8
Fair	10	27.0	7	36.8	3	16.7
Poor	3	8.2	2	10.5	1	5.5
Don't know	1	2.7	1	5.3	0	0.0
Total	37	100.0	19	100.0	18	100.0

Relative to other factors, vendors tended to more frequently give lower rankings for advertising. Overall, 27% believed it to be "fair," but Becker vendors more frequently responded "fair" (36.8%) than they did "excellent" (21.1%) or "good" (26.3%). Less than half,

47.4% of Becker market vendors rated advertising “excellent” or “good,” 77.8% of Saturday market vendors did so. While increased advertising for both markets is advisable, it is particularly important to give more effort to advertising the Becker Market.

#6d Management of the market

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	21	56.8	9	47.4	12	66.7
Good	15	40.5	9	47.4	6	33.3
Fair	0	0.0	0	0.0	0	0.0
Poor	0	0.0	0	0.0	0	0.0
Don't know	1	2.7	1	5.2	0	0.0
Total	37	100.0	19	100.0	18	100.0

Overwhelmingly, merchants ranked the market management “excellent” or “good.” Becker market vendors were divided between rankings of “excellent” and “good,” but two-thirds of Saturday vendors ranked market management “excellent” and one-third ranked it “good.” Written open-ended comments by vendors also indicated high satisfaction with management of the markets.

#6e Expense of operating a stand at the market

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	18	48.7	9	47.4	9	50.0
Good	14	37.8	7	36.8	7	38.9
Fair	5	13.5	3	15.8	2	11.1
Poor	0	0.0	0	0.0	0	0.0
Total	37	100.0	19	100.0	18	100.0

Overall, 86.5% of vendors rated expense of operating a stand “excellent” or “good.” Becker market vendors and Saturday market vendors were fairly consistent with the overall rankings. Those who gave a “fair” ranking were make up 13.5%, with slightly more at the Becker market (15.8%) than at the Saturday market (11.1%).

#7f Ease of getting your products to your stand

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	20	54.1	8	42.1	12	66.7
Good	17	45.9	11	57.9	6	33.3
Fair	0	0.0	0	0.0	0	0.0
Poor	0	0.0	0	0.0	0	0.0
Total	37	100.0	19	100.0	18	100.0

Most merchants were satisfied with ease of getting their products to market (54.1% “excellent,” 45.9% “good”). In those two categories, Becker market vendors more frequently selected “good”

(57.9%) than “excellent” (42.1%) and Saturday vendors more frequently selected “excellent” (66.7%) than “good” (33.3%).

#6g Overall quality of products

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	20	54.1	10	52.6	10	55.6
Good	16	43.2	8	42.1	8	44.4
Fair	1	2.7	1	5.3	0	0.0
Poor	0	0.0	0	0.0	0	0.0
Total	37	100.0	19	100.0	18	100.0

General overall evaluations and rankings by vendors at each market are quite similar, with slightly over half rating quality of products “excellent” and somewhat under half rating them “good.”

#7 To what extent has the market helped you make a living at farming?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Big difference	3	8.1	0	0.0	3	16.7
Moderate difference	11	29.7	6	31.5	5	27.8
Small difference	9	24.3	4	21.1	5	27.8
No difference	6	16.2	4	21.1	2	11.1
Don't know	8	21.6	5	26.3	3	16.6
Total	37	100.0	19	100.0	18	100.0

Selling at the farmers’ markets appears to make some difference for vendors, but in general not a significant difference. Only 37.8% claimed that it makes a big or moderate difference. This is slightly less for Becker vendors (31.5%, with none claiming it makes a big difference) and 44.5% for Saturday market vendors. While 16.2% said it makes no difference, this was much higher for Becker merchants (21.1%) vs. Saturday merchants (11.1%). A significant number (21.6%) claimed they were not sure or did not know. It would seem that promoting the markets to dramatically increase sales would result in a more favorable outcome on this question. The expansion, advertising, and promotion of both markets should be highly supported.

#8 What do you like best about selling at the Becker market?

	Becker Market	Saturday Market	Total
No answer / everything	0	2	2
Social atmosphere, family atmosphere, friendliness, friendly vendors	15	11	26
Management, positive attitude, new changes, reasonable rules, unstructured, are no hour restrictions	2	4	6
Opportunity to sell, exposure for my products	2	0	2
Fresh produce	1	1	2
Buying from local farmers	1	0	1
Ease of use	1	0	1
Provision of canopies	1	0	1
Music	1	0	1
Fewer vendors	1	0	1
Quality of products	0	1	1
Good crowds	0	1	1
Entertaining (something to do)	0	1	1
Learning commerce	0	1	1

The aspect of the markets that received overwhelming approval was the social atmosphere. Clearly, people shop at the farmers' markets not only to sell farm-fresh produce, but because of the friendly, inviting atmosphere for socializing with customers, friends, and other vendors. The next most liked feature of the markets was the management. Vendors appreciated how helpful and friendly those who managed the markets were, but also the unstructured nature of it, without too many rigid rules and restrictions.

#9 What do you like least about selling at the Becker market?

	Becker Market	Saturday Market	Total
No answer, nothing	5	8	13
Getting up early	0	10	10
Market hours not long enough	4	0	4
Slow days/sales	4	0	4
Weather (lack of shade)	2	1	3
People sell before opening time	1	0	1
Layout of the market (no center)	1	0	1
No advertising available for other events	1	0	1
Lack of customers to purchase artwork	1	0	1
Parking	0	1	1

In agreement with the strong positive evaluation of the markets, there were few things that vendors liked least about the market. The hours for the two markets accounted for the most significant factor that people liked least—getting up for the 6:00 am Saturday market (a few mentioned having to get up at 4:30 am). For those who complained about the hours, Becker vendors wanted to have the market open from noon to 7 pm, complained that they could not sell before 3 pm, or that the market began too soon (purportedly before enough produce was available). For those who identified slow days or sales as their least-liked factor, more

customers could be drawn in by offering more and a wider variety of produce (the latter was pointed out by a Becker Market vendor). While many customers complained of weather-related issues, the few who identified weather as what they liked least pointed out lack of shade (although the canopies at Becker market helped).

**#10a Because I operate a stand at this market...
I have developed new products.**

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Strongly agree	6	16.2	5	26.3	1	5.6
Agree	18	48.6	8	42.1	10	55.5
Disagree	1	2.7	0	0.0	1	5.6
Strongly disagree	0	0.0	0	0.0	0	0.0
Not applicable	12	32.4	6	31.6	6	3.3
Total	37	100.0	19	100.0	18	100.0

This set of questions taps behavioral changes and the effect that market vending has on the lives of merchants. Discounting those for whom the question was not applicable (almost one-third), the largest proportion (72% of the 25 remaining) selected “agree.” More Becker market vendors (26.3%) than Saturday market vendors (5.6%) strongly agreed, and 68.4% either strongly agreed or agreed, in contrast to 61.1% at the Saturday market. Market participation would seem to strongly foster entrepreneurship.

#10b I have learned new farming skills.

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Strongly agree	0	0.0	0	0.0	0	0.0
Agree	9	24.3	2	10.5	7	38.8
Disagree	2	5.4	1	5.3	1	5.6
Strongly disagree	1	2.7	0	0.0	1	5.6
Don't Know	1	2.7	0	0.0	1	5.6
Not applicable	24	64.9	16	84.2	8	44.4
Total	37	100.0	19	100.0	18	100.0

These data demonstrate that the majority of market vendors are most likely not farmers at all. If this is the case, many more Becker Market vendors (“not applicable” = 84.2%) are not farmers, while 44.4% of Saturday market vendors are most likely not farmers. Two Becker market vendors agreed and one disagreed that selling at the market helped them to develop new farming skills. With more apparent farmers selling at the Saturday market, 70% of them agreed that they have developed new farming skills. This raises an important issue: why does the Becker market draw so few farmers relative to the Saturday market? A serious impediment to increasing consumption of local foods in Kandiyohi county (discussed elsewhere) is the fact that only one farm is listed in the “Pride of the Prairie Guide” for Kandiyohi County. Local, small-scale, sustainable farming will require substantial support for this project to achieve its goals. It may be that the different locations encourage more farmers to come from outside the county to participate in the Saturday market.

#10c I have learned more about organic farming

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Strongly agree	0	0.0	0	0.0	0	0.0
Agree	6	16.2	2	10.5	4	22.2
Disagree	5	13.5	2	10.5	3	16.7
Strongly disagree	1	2.7	0	0.0	1	5.6
Don't know	2	5.4	0	0.0	2	11.1
Not applicable	23	62.2	15	79.0	8	44.4
Total	37	100.0	19	100.0	18	100.0

No market vendors strongly agreed that they had learned more about organic farming. Two Becker market vendors agreed and two disagreed. For Saturday market vendors, four agreed and three disagreed, with one strongly disagreeing. In the context of overall evaluations of the farmers' markets, the fact that products are local and fresh appears to more salient than whether they are organic.

#10d I have learned more about running a small business

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Strongly agree	2	5.4	1	5.3	1	5.6
Agree	20	54.1	11	57.8	9	50.0
Disagree	3	8.1	1	5.3	2	11.1
Strongly disagree	1	2.7	1	5.3	0	0.0
Don't know	1	2.7	1	5.3	0	0.0
Not applicable	10	27.0	4	21.0	6	33.3
Total	37	100.0	19	100.0	18	100.0

Selling at the farmers' markets appears strongly correlated with developing business skills. Of 27 marketers who answered other than "not applicable," 81.5% either strongly agreed or disagreed that they had learned more about running a small business. Both Becker (80.0%) and Saturday (83.3%) market vendors answered in similar proportions.

#10e I have earned more income from farming

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Strongly agree	3	8.1	1	5.3	2	11.1
Agree	11	29.7	5	26.3	6	33.3
Disagree	3	8.1	0	0.0	3	16.7
Strongly disagree	0	0.0	0	0.0	0	0.0
Don't know	0	0.0	0	0.0	0	0.0
Not applicable	20	54.1	13	68.4	7	38.9
Total	37	100.0	19	100.0	18	100.0

Of the 17 vendors who did not answer “not applicable,” 17.6% strongly agreed, 64.7% agreed, and 17.6% disagreed that they earn more farm income by selling at the farmers’ markets. Whereas all of the 6 Becker merchants either strongly agreed or agreed, 72.7% of the 11 Saturday vendors strongly agreed or agreed. While these data suggest positive results, it will be important to determine how farmers can augment their income even more through farmers’ market sales. With better advertising and incentives, more customers would increase demand, contributing to farmers’ incomes. Some thought should be given to providing incentives for shopping at farmers’ markets.

#10f I feel better about my future in farming

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Strongly agree	0	0.0	0	0.0	0	0.0
Agree	9	24.3	4	21.0	5	27.8
Disagree	5	13.5	1	5.3	4	22.2
Strongly disagree	0	0.0	0	0.0	0	0.0
Don't know	1	2.7	0	0.0	1	5.6
Not applicable	22	59.5	14	73.7	8	44.4
Total	37	100.0	19	100.0	18	100.0

Nine of the 15 vendors (60%) who did not select “not applicable” agreed that selling at the farmers’ market makes them feel better about their future in farming. One-third disagreed. Becker market vendors showed a stronger response, with four of the five responding (80%) agreeing and for Saturday market vendors, five of nine (55.5%) agreeing. Given that none selected “strongly agree,” an investigation to determine how participation at the farmers’ markets can be changed to better ensure that marketers continue to benefit in the future.

#10g I have developed a larger customer base

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Strongly agree	10	27.0	4	21.1	6	33.3
Agree	17	46.0	10	52.6	7	38.9
Disagree	1	2.7	0	0.0	1	5.6
Strongly disagree	0	0.0	0	0.0	0	0.0
Don't know	1	2.7	0	0.0	1	5.6
Not applicable	8	21.6	5	26.3	3	16.6
Total	37	100.0	19	100.0	18	100.0

For those to whom this question did apply, 73% strongly agreed or agreed that they had developed a larger customer base by selling at the farmers’ markets. Compared to 93% of these overall, 100% of Becker market vendors strongly agreed or agreed and 86.6% of Saturday market vendors strongly agreed or agreed. These face-to-face contacts between farmers and consumers are obviously quite important to farmers.

#10h I am more able to provide food for my family and myself

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Strongly agree	7	18.9	2	10.5	5	27.8
Agree	12	32.4	6	31.6	6	33.3
Disagree	1	2.7	1	5.3	0	0.0
Strongly disagree	1	2.7	0	0.0	1	5.6
Don't know	2	5.4	0	0.0	2	11.1
Not applicable	14	37.8	10	52.6	4	22.2
Total	37	100.0	19	100.0	18	100.0

Nineteen vendors (82.6% of the 23 for whom the question was applicable) either strongly agreed or agreed that they can better provide food for themselves and their families because they sell at the farmers' markets. Nine of the Becker market vendors responded with 88.9% either strongly agreeing or agreeing. For Saturday market vendors 78.6% of the 14 who responded either strongly agreed or agreed. Even though sales are minimal (see #11), overall, merchants believe that market vending makes a contribution to their livelihoods.

#11 How much do you typically make in a day at the market?

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market \$
Less than \$100	13	35.1	10	52.6	3	16.6
\$100-199	10	27.0	5	26.3	5	27.8
\$200-299	1	2.7	0	0.0	1	5.6
\$300-399	3	8.1	1	5.3	2	11.1
\$400-499	1	2.7	1	5.3	0	0.0
\$500-749	1	2.7	0	0.0	1	5.6
\$750 or more	1	2.7	0	0.0	1	5.6
Don't know	7	19.0	2	10.5	5	27.7
Total	37	100.0	19	100.0	18	100.0

Thirty-five percent of market merchants report earning less than \$100 on a market day. Another 27% earn between \$100-199. What is particularly revealing is the difference between the Becker and Saturday markets. Over half (52.6%) at the Becker Market claim to earn under \$100 and only 16.6% at the Saturday market. Over one-fourth (26.3%) at the Becker market earn \$100-199, and 27.85 at the Saturday market. From the distribution of gross income categories at the Saturday market, vendors appear to have a greater chance of higher incomes than at the Becker market. It would be worthwhile to investigate the reason for this disparity; do Saturday merchants bring a larger volume of products to sell? Does the greater volume of consumers constitute a principal cause for this difference?

#12 What other types of direct marketing assistance could the market provide to you and other merchants?

	Becker Market	Saturday Market
More advertising	1	2
Bring in bus tours and have entertainment	1	
Have other events coincide with the market days—they draw more people and increase sales	1	
Have a kids booth	1	
Help with customer mailing list for winter	1	
Website with listing of growers and market information		1

Few merchants offered suggestions for improvement, which indicates general satisfaction with the markets. Those who did offer suggestions wanted more advertising to bring in more customers. They suggested newspaper advertising and use of photos to attract attention to the markets. Putting the markets on the tourist agenda via bus tours, having entertainment, and encouraging other events the same day were also suggested to draw in more shoppers. One individual suggested having a children’s booth which would both draw children and their parents. The last suggestion was to develop a web site to provide information on the merchants and what they are selling so that people could consult it.

#13 How many acres do you garden or farm?

Acres	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
3 or less	8	21.6	2	10.5	6	33.3
4-6	5	13.5	3	15.8	2	11.1
7-9	0	0.0	0	0.0	0	0.0
10 or more	4	10.8	1	5.3	3	16.7
Not applicable	20	54.1	13	68.4	7	38.9
Total	37	100.0	19	100.0	18	100.0

Over 54% of market merchants do not own land to grow crops. Fewer at the Becker market own acreage (68.4%) than at the Saturday market (38.9%). Among those with land, one-third of Becker merchants own 3 or fewer acres and 55% of Saturday merchants own three acres or less. Few own 10 or more acres, only one at the Becker market and three at the Saturday market. It seems clear that more farmers need to be encouraged to grow for the farmers’ markets and to sell fresh produce. With only one organic farm in Kandiyohi County, much support is needed to encourage new farmers to enter sustainable farming.

14. During the growing season, are you employed full-time or part-time as a farmer/food producer?

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Self-employed full time	11	29.7	4	21.0	7	38.9
Employed by another full time	4	10.8	1	5.3	3	16.7
Self-employed part time	1	2.7	1	5.3	0	0.0
Employed by another part time	0	0.0	0	0.0	0	0.0
Not applicable /not answered	21	56.8	13	68.4	8	44.4
Total	37	100.0	19	100.0	18	100.0

For those who answered the survey question, 29.7% are self employed full time. Another 10.8% are employed by another and work full time. For Becker merchants, 66.7% of those who did answer are self-employed full time; that proportion is 70% for Saturday merchants.

#15 Do you also grow commodity crops or have a feedlot?

	Becker Market	Saturday Market
Corn & soy	1	2
Corn, soy, wheat, alfalfa, oats, kidney beans, peas, sweet corn	0	1
Buffalo	0	1

As indicated in the table, only 5 market vendors also grow commodity crops. No vendor owned a feedlot.

#16 Please identify your ethnic, cultural, or geographic background

Only one individual self-identified their ethnic/cultural background as other than Caucasian. The fact that only one Hispanic merchant at the Becker Market did so raises concerns about how or why multiethnic populations other than European (Norwegian, German, etc.) have not been inspired to sell local products at the farmers' markets. Since one part of the local foods project is to support cultural diversity, much more needs to be done to provide more support and incentives to make these markets truly multicultural.

#17 Please indicate your income category

	Number	Percent	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Under \$ 9,000	3	8.1	2	10.5	1	5.6
\$ 9,000-14,999	2	5.4	1	5.3	1	5.6
\$15,000-21,999	2	5.4	1	5.3	1	5.6
\$22,000-27,999	1	2.7	1	5.3	0	0.0
\$28,000-35,999	2	5.4	0	0.0	2	11.1
\$36,000-49,999	5	13.5	3	15.8	2	11.1
\$50,000 or more	7	18.9	4	21.0	3	16.6
Don't know /not answered	15	40.5	7	36.8	8	44.4
Total	37	100.0	19	100.0	18	100.0

Although assured of confidentiality and that the information was for demographic analysis, over 40% of merchants were reluctant to identify their income category. Among the 22 who responded, 31.8% earn \$50,000 or more, and 22.7% earn \$36,000-49,999. Alternatively, 13.6% earn under \$9,000. If we eliminate those who refrained from answering, the following results accrue:

	Becker Market #	Becker Market %	Saturday Market #	Saturday Market %
Under \$ 9,000	2	16.7	1	10.0
\$ 9,000-14,999	1	8.3	1	10.0
\$15,000-21,999	1	8.3	1	10.0
\$22,000-27,999	1	8.4	0	0.0
\$28,000-35,999	0	0.0	2	20.0
\$36,000-49,999	3	25.0	2	20.0
\$50,000 or more	4	33.3	3	30.0
Total	12	100.0	10	100.0

The data now show that more Becker vendors (16.7%) than Saturday vendors (10%) earn under \$9,000. At the same time, differences among those who earn up to \$49,999 and over \$50,000 are not that great (25% at the Becker market and 20% at the Saturday market earn \$36,000-49,999 and 33.3% of Becker vendors and 30% of Saturday vendors earn over \$50,000).

Crosstabulation: How far do you live from the market (rows) by how often you sell at the market (columns) – both markets combined

	Weekly	2-3 Times per month	Monthly	Several times per year	Once a year	Other	Total
0-1 mile	2	0	0	0	0	0	2
2-4 miles	4	0	0	1	0	0	5
5-9 miles	3	1	0	1	0	0	5
10-14 miles	3	0	0	0	0	0	3
15-19 miles	6	1	0	2	0	0	9
20-29 miles	7	0	0	1	0	1	9
30-46 miles	3	1	0	0	0	0	4
Total	28	3	0	5	0	1	37

Those who sell weekly at the markets more often live 15-19 miles away. While the markets attract vendors within a 46-mile radius—a desirable distance for promoting local food consumption—distance from the market does not seem to have much disadvantage within this radius.

Crosstabulation: How long have you sold at the market (rows) by it helped you to earn more (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know /Not applicable	Total
Under 1 year	1	1	1	0	7	10
1 year	0	0	0	0	2	2
2 years	0	4	0	0	3	7
3 years	0	1	0	0	5	6
4 years	0	0	1	0	0	1
5-9 years	1	2	1	0	0	4
10-14 years	0	2	0	0	2	4
15-19 years	1	0	0	0	0	1
20 or more years	0	1	0	0	1	2
Total	3	11	3	0	20	37

Only 37.8% of merchants strongly agreed or agreed that they earned more to support their families through market sales. Length of time for market participation shows little influence on these responses. The following table offers further evidence of this fact.

Crosstabulation: How long have you sold at the market (rows) by it helps you to make a living at farming (columns)

	Big difference	Moderate difference	Small difference	No difference	Don't know	Total
Under 1 year	0	5	1	2	2	10
1 year	0	1	0	0	1	2
2 years	0	2	2	2	1	7
3 years	0	0	2	1	3	6
4 years	0	0	0	1	0	1
5-9 years	0	1	3	0	0	4
10-14 years	2	0	1	0	1	4
15-19 years	0	1	0	0	0	1
20 or more years	1	1	0	0	0	2
Total	3	11	9	6	8	37

For most merchants, market sales make a moderate to small difference to making a living and given the distribution of data in the table, length of time having sold at the market seems to play little role. Some thought should be given to how marketing structure and strategies might enhance farmers' ability to augment their incomes. Data from other questions reinforce the importance of increasing production to draw more customers and efforts to bring more people into the markets.

Crosstabulation: How long have you sold at the market (rows) by it helps you to better provide for your family and yourself (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know /Not applicable	Total
Under 1 year	1	5	0	0	4	10
1 year	0	1	0	0	1	2
2 years	1	2	1	0	3	7
3 years	1	1	0	0	4	6
4 years	0	0	0	0	1	1
5-9 years	1	2	0	1	0	4
10-14 years	3	0	0	0	1	4
15-19 years	0	0	0	0	1	1
20 or more years	0	1	0	0	1	2
Total	7	12	1	1	16	37

As in the previous 2 questions, market vending appears to play little role in earning an income, making a living at farming, or to helping to provide for vendors and/or their families. The vendor who disagreed had sold only 2 years and the one who strongly disagreed had sold for 5-9 years. Eleven of the 16 with no response were all newer merchants with 3 or fewer years of experience. For those who strongly agreed, 2 had sold at the markets for 2-3 years and 3 had sold 10-14 years. More of the 12 who agreed (5 of 12) had sold less than one year, 4 had sold 1-3 years, and 3 had sold 5 years or more. The local communities could benefit from strong efforts to build up these markets to 1) promote more consumption of local foods and 2) to increase opportunities for farmers, gardeners, and others to increase their incomes, stay in farming, and provide for their families.

Crosstabulation: How long have you sold at the market (rows) by it helped you to develop new products (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	Not applicable	Total
Under 1 year	1	5	0	0	4	10
1 year	0	1	1	0	0	2
2 years	1	3	0	0	3	7
3 years	3	3	0	0	0	6
4 years	0	1	0	0	0	1
5-9 years	0	3	0	0	1	4
10-14 years	1	1	0	0	2	4
15-19 years	0	0	0	0	1	1
20 or more years	0	1	0	0	1	2
Total	6	18	1	0	12	37

For those who considered this question applicable to their particular circumstances, all but one believed (96% strongly agreed or agreed) that marketing helped them to develop new products. Fostering the development of products should be further encouraged.

Crosstabulation: How long have you sold at the market (rows) by it helped you to learn new skills (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know /Not applicable	Total
Under 1 year	0	2	1	0	7	10
1 year	0	0	0	0	2	2
2 years	0	0	1	0	6	7
3 years	0	1	0	0	5	6
4 years	0	0	0	0	1	1
5-9 years	0	3	0	1	0	4
10-14 years	0	2	0	0	2	4
15-19 years	0	0	0	0	1	1
20 or more years	1	0	0	0	1	2
Total	1	8	2	1	25	37

It is unclear why in the previous question market vending encouraged vendors to develop new products, yet a small portion (only 9 of 37, or 24.3%) believed it helped them to develop new skills. There appears to be a weak correlation with how long they have sold products at the market. One gap in our knowledge is what kind of marketing skills merchants might like to gain or improve on. It might be desirable to offer workshops for merchants that could both attract more vendors to participate and to do so more effectively.

Crosstabulation: How long have you sold at the market (rows) by it helped you to learn more about running a small business (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know /Not applicable	Total
Under 1 year	1	5	1	0	3	10
1 year	0	1	0	0	1	2
2 years	0	4	1	1	1	7
3 years	0	4	0	0	2	6
4 years	0	1	0	0	0	1
5-9 years	0	3	1	0	0	4
10-14 years	0	1	0	0	3	4
15-19 years	0	0	0	0	1	1
20 or more years	1	1	0	0	0	2
Total	2	20	3	1	11	37

Over half (59.5%) strongly agreed or agreed that they had learned more about running a small business. A learning curve may enhance this factor more for new merchants as 15 of the 22 (68%) had been selling 3 years or less.

Crosstabulation: How long have you sold at the market (rows) by it helped you to feel better about your future in farming (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know /Not applicable	Total
Under 1 year	0	2	1	0	7	10
1 year	0	0	0	0	2	2
2 years	0	1	1	1	4	7
3 years	0	1	0	0	5	6
4 years	0	0	1	0	0	1
5-9 years	0	2	2	0	0	4
10-14 years	0	2	0	0	2	4
15-19 years	0	0	0	0	1	1
20 or more years	0	1	0	0	1	2
Total	0	9	5	1	22	37

Only 24.3% of merchants agreed that they feel better about their farming futures because of their participation in farmers' markets. Not one strongly agreed. However, it should be pointed out that 59.5% did not know or see the question applicable. It can be assumed that most of these are not farmers at all. Another 16.2% disagreed or strongly disagreed. When the "don't know/not applicable" column is excluded, there is not clear association of thoughts on farming future with length of time participating in the markets.

Crosstabulation: How long have you sold at the market (rows) by it helped you to develop a larger customer base (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know /Not applicable	Total
Under 1 year	2	2	1	0	5	10
1 year	0	2	0	0	0	2
2 years	1	5	0	0	1	7
3 years	2	3	0	0	1	6
4 years	0	1	0	0	0	1
5-9 years	0	4	0	0	0	4
10-14 years	2	0	0	0	2	4
15-19 years	1	0	0	0	0	1
20 or more years	2	0	0	0	0	2
Total	10	17	1	0	9	37

Many vendors (73%) strongly agreed or agreed that selling at the markets helped them to develop a larger customer base. Of the 28 respondents who strongly agreed or agreed, 17 had sold at the markets 3 years or less and 10 had sold 4 years or more.

Crosstabulation: Community you live closest to (rows) by products you are selling today (columns)

	Vegetable	Meat	Bakery	Meal	Combination	Non-food	Not answered	Total
ATTWATER			1					1
BIRD ISLAND					1			1
CLARA CITY		1				1		2
FAHLUN TWNSHP					1			1
KANDIYOHI	1							1
KERKHOVEN					2	2		4
LAKE LILIAN					2			2
MONTEVIDEO	1							1
NEW LONDON					1	2		3
OLIVIA	1				2			3
PENNOCK	1				1	1		3
SPICER		1						1
SUNBURG						1		1
WILLMAR	5			1	2	3	1	12
RAYMOND		1						1
Total	9	3	1	1	12	10	1	37

The largest proportion of vendors (32.4%) come from Willmar, followed by Kerkhoven (10.8%). Willmar-based merchants more often sold vegetables. Two striking factors mark what is being sold: 32.4% combine sales of a variety of products and 27% sell non-food items. While different opinions were expressed by customers (several customers expressed that they did not want non-food items to be sold at the farmers' markets), it would be beneficial to increase the proportion of food items over non-food items sold at the markets. The most important insight this table contributes is in which communities vending at the farmers' markets should be promoted. Most communities are represented by a single vendor and variety from all these communities should increase substantially. This promotion could result in more vibrant markets for both sellers and customers.

Crosstabulation: Products you are selling today (rows) by the market helps you to make a living at farming (columns)

	Big difference	Moderate difference	Small difference	No difference	Don't know	Total
Vegetables	1	2	4	1	1	9
Meat	0	1	2	0	0	3
Bakery	0	1	0	0	0	1
Meal	0	0	0	0	1	1
Combination	2	5	2	0	2	11
Non-food	0	1	1	5	4	11
Not Answered	0	1	0	0	0	1
Total	3	11	9	6	8	37

Given that the largest proportion of vendors do not believe market vending helps them to make a living at farming, do the products they sell make a difference? Those who sell vegetables demonstrated a mixed picture: 3 of 9 claim it makes a big or moderate difference, but 5 of 9 claim it makes a small or no difference. For the 3 meat sellers, one claimed a moderate and 2 a small difference. Those who combined a variety of products had the most positive responses: 7 said it makes a big or moderate difference, while 2 said it makes a small difference. It is interesting that only one vendor of non-food items claimed a moderate difference, while the remaining 10 claimed a small or no difference, or were not sure.

Crosstabulation: Products you are selling today (rows) by the market helped you to develop new products (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	Not applicable	Total
Vegetables	0	5	0	0	4	9
Meat	0	1	0	0	2	3
Bakery	0	0	1	0	0	1
Meal	0	0	0	0	1	1
Combination	3	5	0	0	3	11
Non-food	3	7	0	0	1	11
Not Answered	0	0	0	0	1	1
Total	6	18	1	0	12	37

A total of 24 merchants of the 25 (96%) for whom this question was applicable strongly agreed or agreed that marketing helped them develop new products. Five of these sold vegetables, 8 a combination of products, and 10 sold non-food items.

Crosstabulation: Products you are selling today (rows) by the market helped you to earn more (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	Not applicable	Total
Vegetables	0	5	1	0	3	9
Meat	0	2	0	0	1	3
Bakery	0	0	0	0	1	1
Meal	0	0	0	0	1	1
Combination	2	4	1	0	4	11
Non-food	0	0	1	0	10	11
Not Answered	1	0	0	0	0	1
Total	3	11	3	0	20	37

Here, too, it appears that selling vegetables (5 vendors) or a combination of products (6 vendors) resulted in the most positive responses.

Crosstabulation: Products you are selling today (rows) by the market helps you to better provide for your family and yourself (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	No answer /Not applicable	Total
Vegetables	2	2	1	0	4	9
Meat	0	1	0	1	1	3
Bakery	0	1	0	0	0	1
Meal	0	0	0	0	1	1
Combination	5	4	0	0	2	11
Non-food	0	4	0	0	7	11
Not Answered	0	0	0	0	1	1
Total	7	12	1	1	16	37

Only 21 answered this question as applicable to their particular circumstances. Four of 5 vegetable sellers believed that they could better provide for their families and/or themselves. Nine who sold a combination of items strongly agreed or agreed, and 4 who sold non-food items agreed.

Crosstabulation: Products you are selling today (rows) by the market helped you to develop a larger customer base (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	No answer /Not applicable	Total
Vegetables	2	5	0	0	2	9
Meat	0	3	0	0	0	3
Bakery	0	1	0	0	0	1
Meal	0	0	0	0	1	1
Combination	6	1	1	0	3	11
Non-food	1	7	0	0	3	11
Not Answered	1	0	0	0	0	1
Total	10	17	1	0	9	37

The most positive responses for products that helped to develop a customer base were vegetables (7 vendors), a combination of items (7 vendors), and non-food items (8 vendors).

Crosstabulation: Products you are selling today (rows) by number of acres owned (columns)

	3 acres or less	4-6 acres	7-9 acres	10 acres or more	Not applicable	Total
Vegetables	5	1	0	2	1	9
Meat	0	0	0	1	2	3
Bakery	0	0	0	0	1	1
Meal	0	0	0	0	1	1
Combination	3	4	0	0	4	11
Non-food	0	0	0	0	11	11
Not Answered	0	0	0	1	0	1
Total	8	5	0	4	20	37

Seventeen of the merchants also owned land. For the 9 vegetable sellers, 5 owned 3 acres or less, 1 owned 4-6 acres, and 2 owned 10 acres or more. The 7 individuals selling a combination of products owned 3-6 acres of land. In general, farmers' market vendors tend to hold smaller parcels of land and appear to be largely small-scale farmers and gardeners, as would be expected for participants in the local food system.

Crosstabulation: Income category (rows) by the market helps me to make a living at agriculture (columns)

	Big difference	Moderate difference	Small difference	No difference	Don't know /not applicable	Total
Under \$ 9,000	0	0	1	1	1	3
\$ 9,000-14,999	0	2	0	0	0	2
\$15,000-21,999	0	0	1	1	0	2
\$22,000-27,999	0	1	0	0	0	1
\$28,000-35,999	0	1	0	0	1	2
\$36,000-49,999	0	2	0	1	2	5
\$50,000 or more	0	2	4	1	0	7
Don't know /not answered	3	3	3	2	4	15
Total	3	11	9	6	8	37

Many vendors (40.5%) refrained for giving their income category even though confidentiality was assured. For the 18 who did indicate income level and it effect on making a living at agriculture, none claimed it makes a big difference. For those who said it makes a moderate difference, responses are spread across most of the range of income categories. Those who said it makes a small difference included one earning under \$9,000, one earning \$15,000-21,999, and 4 who earn over \$50,000. The 4 who said it makes no difference, again, spanned across the various income categories. Without more complete data it is difficult to see any relationship between making a living at agriculture and income category.

Crosstabulation: Income category (rows) by gross income earned in one day at the market (columns)

	Less than \$100	\$100-199	\$200-299	\$300-399	400-499	\$500-749	\$750 or more	Don't know	Total
Under \$ 9,000	1	1	0	1	0	0	0	0	3
\$ 9,000-14,999	0	2	0	0	0	0	0	0	2
\$15,000-21,999	2	0	0	0	0	0	0	0	2
\$22,000-27,999	1	0	0	0	0	0	0	0	1
\$28,000-35,999	0	1	0	0	0	0	0	1	2
\$36,000-49,999	3	1	0	1	0	0	0	0	5
\$50,000 or more	4	2	0	0	0	1	0	0	7
Don't know /not answered	11 2	7 3		2 1		1 0			15
Total	13	10	1	3	1	1	1	7	37

This table reveals an interesting fact. It does not appear that merchants with higher incomes tend to earn more at the farmers' markets. Four vendors who earn under \$28,000 and 7 who earn \$36,000 or more take in less than \$100 on a typical market day. Three who earn under \$15,000 and 3 who earn \$36,000 or more generally take in \$100-199. The two who typically earn \$300-399 represent the lowest income category and the next highest income category. The one merchant who typically earns \$500 or more has an annual income of \$50,000 or more.

Crosstabulation: Gross income earned in one day at the market (rows) by products you are selling today (columns)

	Vegetable	Meat	Bakery	Meal	Combination	Non-food	Total
Less than \$100	2	1	0	0	3	7	13
\$100-199	5	0	1	1	0	3	10
\$200-299	0	1	0	0	0	0	1
\$300-399	0	0	0	0	2	1	3
\$400-499	1	0	0	0	0	0	1
\$500-749	0	1	0	0	0	0	1
\$750 or more	1	0	0	0	0	0	1
Don't know	0	0	0	0	6	0	6
Total	9	3	1	1	11	11	36

Is there a relationship between what products merchants sell and their typical earnings in a day at the market? While those who sell vegetables spread across the range of typical daily earnings, 5 of the 9 earn between \$100-199. Two others earn under \$100 and only one claimed to take in over \$400 and one other over &750 on a typical market day.

The three meat vendors ranged from under \$100 to \$200-299, to \$500-749.

Both the vendor who sold bakery products and the vendor who sold meals (prepared food) claimed to take in between \$100-199.

The combination merchants more often earn under \$100, but two claimed to earn between \$300-399.

Finally, vendors of non-food products (7 of 11) mostly earned under \$100, with 3 who take in \$100-199 and one who claimed to take in \$300-399.

Appendix B. Farmers' Market Customer Surveys

Farmers' Market Customer Survey



1. How often do you visit the Becker market?

- This is my first time
- Less than once a month
- Once a month
- 2 times a month
- 3 times a month
- Once a week

2. What is the purpose of your trip to the Becker market? (Please check all that apply.)

- Purchase fruits and vegetables
- Purchase meat, poultry or fish
- Purchase cheese, dairy items
- Purchase baked goods
- Eat a meal
- Visit with friends
- Other: _____

3. Do you also attend the Saturday Farmers' Market?
 yes no

4. About how far do you live from the market?
_____ blocks OR _____ miles

5. How did you learn about the Becker market?
(Please check all that apply.)

- Saw it while driving or walking by
- From friends or family (word of mouth)
- Radio
- Internet
- Newspaper
- Signs
- Other: _____

6. How do you feel about each of the following aspects of the Becker market?

	<u>Excellent</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Don't know</u>
a. Convenience of the location.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Availability of parking spaces.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Hours of operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Cleanliness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Social atmosphere.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. How would you rate the products sold at the Becker market?

	<u>Excellent</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Don't know</u>
a. Quality of products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Variety of products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Price of products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Availability of foods you like to eat and cook.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Availability of foods important to your culture/tradition.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Availability of foods that are new to you that you would like to try	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. What other products would you like to see at the Becker market?

9. How much did/do you expect to spend today at the Becker market?

- \$0
- up to \$5
- \$6 to \$10
- \$11 to \$20
- \$21 to \$30
- \$31 to \$40
- \$41 to \$50
- more than \$50

OVER

10. What do you like best about the Becker market?

11. What do you like least about the Becker market?

12. Please indicate what changes you have experienced because you shop at the Becker market.

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>	<u>Don't</u> <u>know</u>
a. I eat more fruits and vegetables.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I eat more organic food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I eat fresher food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. I eat less fast food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. I eat more foods that are traditional for my culture/ family background.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I eat new kinds of food.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. I spend less money on food.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. I am better able to provide food for my family and myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. I feel better about where my food comes from.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

These last questions are about you and your family. The information is confidential and will only be used to provide demographic characteristics of market shoppers.

13. How many total people live in your household (please include yourself)

_____ people

14. How many persons under the age of 18 live in your household?

_____ children under 18

15. To help us understand cultural food preferences, please identify your ethnic, cultural, or geographic background:

16. To help us understand how economics shapes food preferences, please indicate your income category:

- Under \$9,000
- \$9,000 - \$14,999
- \$15,000 - \$21,999
- \$22,000 - \$27,999
- \$28,000 - \$35,999
- \$36,000 - \$49,999
- \$50,000 or more
- Don't know

Thank you!

ANALYSIS OF MARKET DATA – CUSTOMERS

Frequencies, Becker & Saturday market customer surveys

#1 How often do you visit the market?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
First time visited	41	25.6	24	40.0	17	17.0
Less than once per month	8	5.0	4	6.7	4	4.0
One time per month	20	12.5	9	15.0	11	11.0
Two times per month	25	15.6	9	15.0	16	16.0
Three times per month	15	9.4	5	8.3	10	10.0
Weekly	51	31.9	9	15.0	42	42.0
Total	160	100.0	60	100.0	100	100.0

A significant number, over one-fourth of market customers, are first-time visitors. Strategies to encourage these shoppers to return should be considered. The largest number, however, are weekly market shoppers, suggesting overall satisfaction with the markets. In comparing the two markets, more first-time shoppers (40% vs. 17%) visited the Becker market, while more weekly shoppers (42% vs. 15%) patronized the Saturday market. This may be attributed to the fact that the Saturday market is more established, with more years of operation.

#2 What is the purpose of your trip to the market today?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Purchase fruit & vegetables	126	78.8	31	51.7	95	95.0
			----- 16 only vegetables	----- - 25.7	----- 40 only vegetables	----- 40.0
Purchase meat	20	12.5	5	8.3	14	14.0
Purchase dairy products	1	.6	1	1.7	2 (eggs)	2.0
Purchase baked goods	37	23.1	22	36.7	15	15.0
Eat a meal	9	5.6	7	11.7	2	2.0
Visit friends	26	16.3	11	18.3	15	15.0

Many customers gave multiple reasons for their trip to the market. The primary reason for visiting the market is to purchase fresh vegetables (78.8%); the proportion is much larger for the Saturday market than for the Becker market. Baked goods are also very popular, particularly at the Becker market where a long line forms to purchase artisan bread. As indicated in question #10, a large majority of customers value the market for its social aspects; over one-fourth mentioned visiting friends as a purpose for patronizing the market. While a small proportion (5.6%) want to eat a meal or purchase prepared foods, customers indicate that were more available, they would like to purchase prepared foods. Identification of purpose, it should be noted, is also dependent on what is available; increasing availability of meat, dairy, and prepared foods, for example, would also modify answers provided as well as increase the number of market customers. Among customers who gave other reasons for

visiting the market, 13 came out of curiosity or to browse, one to “get away,” and one to “keep his wife happy.”

#3 Do you also attend the other market?

	Becker #	Becker %	Saturday #	Saturday %
Yes	28	46.7	40	40.0
No	32	53.3	60	60.0
Total	60	100.0	100	100.0

Less than half (46.7%) of Becker market shoppers also patronize the Saturday Farmers’ Market, while 40% of Saturday market shoppers also patronize the Becker market. Overlap is significant and should be encouraged to continue and expand.

#4 How far did you travel to get to the market today?

Distance in Miles	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
under 1.00	28	17.5	14	23.3	14	14.0
1- 4.99	63	39.4	21	35.0	42	42.0
5- 9.99	18	11.2	7	11.7	11	11.0
10-19.99	30	18.8	11	18.4	19	19.0
20-29.99	9	5.6	2	3.3	7	7.0
30-49.99	7	4.4	2	3.3	5	5.0
50-99.99	2	1.2	1	1.7	1	1.0
100+	3	1.9	2	3.3	1	1.0
Total	160	100.0	60	100.0	100	100.0

The majority (56.9%) of market customers live within 5 miles of the markets. Almost a quarter (24.4%) travel between 10 to 30 miles to visit the markets. A few were visiting relatives, one from 150 miles away and another from 700 miles away. The median distance was 3.0 miles.

#5 How did you learn about the market?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Saw it while passing	37	23.1	14	23.3	23	23.0
By word of mouth	60	37.5	24	40.0	36	36.0
Radio	5	3.1	2	3.3	3	3.0
Newspaper	30	18.8	8	13.4	22	22.0
Signs	5	3.1	3	5.0	2	2.0
TV	1	.6	1	1.7	0	0.0
Other	10	6.3	3	5.0	7	7.0
Multiple sources	12	7.5	5	8.3	7	7.0
Total	160	100.0	60	100.0	100	100.0

Word of mouth is the primary means for spreading news about the markets. Many learned from relatives or friends. Many in this category have always lived in the area, and were thus familiar with their presence. Because 23% saw the market while passing, it would be important to consider how to make the markets more appealing and draw more attention to them.

#6a How would you rate the location of the market?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	85	53.1	33	55.0	52	52.0
Good	72	45.0	25	41.6	47	47.0
Fair	1	.6	1	1.7	0	0.0
Poor	0	0.0	0	0.0	0	0.0
Don't know/no answer	5	1.3	1	1.7	1	0.0
Total	160	100.0	60	100.0	100	100.0

Market locations are highly valued as accessible and convenient. These should be retained and promoted.

#6b How would you rate parking availability?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	52	32.5	21	35.0	31	31.0
Good	78	48.8	29	48.4	49	49.0
Fair	25	15.6	8	13.3	17	17.0
Poor	2	1.3	0	0.0	2	2.0
Don't know/no answer	3	1.9	2	3.3	1	1.0
Total	160	100.0	60	100.0	100	100.0

Whereas most (81.3%) find parking readily available, the Saturday market received complaints from the adjacent trucking company and restricted parking this year. Some customers complained of this.

#6c How would you rate the hours of operation of the market?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	56	35.0	16	26.7	40	40.0
Good	87	54.4	35	58.3	52	52.0
Fair	14	8.1	8	13.3	5	5.0
Poor	1	.6	0	0.0	1	1.0
Don't know/no answer	4	2.5	1	1.7	2	2.0
Total	160	100.0	60	100.0	100	100.0

Most customers find the day and time of market operation good or excellent. The main complaints were from Saturday market shoppers, given the early start time of 6:00 am, and a few people who complained that some vendors began selling before the official opening, items being sold out by the time they arrived, or wanting extended hours for the Becker market.

#6d How would you rate cleanliness of the market?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	80	50.0	30	50.0	50	50.0
Good	78	48.0	29	48.3	49	49.0
Fair	0	0.0	0	0.0	0	0.0
Poor	0	0.0	0	0.0	0	0.0
Don't know/no answer	2	.3	1	1.7	1	1.0
Total	160	100.0	60	100.0	100	100.0

Cleanliness of the market is highly valued by customers with slightly more rating it “excellent” than those who rated it “good.”

#6e How would you rate the social atmosphere of the market?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	91	56.9	32	53.3	59	59.0
Good	65	40.6	28	46.7	37	37.0
Fair	1	.6	0	0.0	1	1.0
Poor	0	0.0	0	0.0	0	0.0
Don't know/no answer	3	1.9	0	0.0	3	3.0
Total	160	100.0	60	100.0	100	100.0

A most important aspect of farmers’ markets is the social atmosphere. Customers overwhelmingly place high value on friendliness of customers and vendors, opportunity to meet with friends, and the enjoyable environment afforded by bringing farmers and consumers together. See also #10.

#7a How would your rate the quality of products sold at the market?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	89	55.6	24	40.0	65	65.0
Good	59	36.9	27	45.0	32	32.0
Fair	3	1.9	2	3.3	1	1.0
Poor	0	0.0	0	0.0	0	0.0
Don't know/no answer	9	5.6	7	11.7	2	2.0
Total	160	100.0	60	100.0	100	100.0

Customers most often rated the quality of products excellent or good. This perception was more strongly held at the Saturday market (65% excellent, 32% good) than the Becker market (40% excellent, 45% good). Those who tended to claim they did not know were often first-time shoppers.

#7b How would you rate the variety of products sold at the market?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	63	39.4	13	21.7	50	50.0
Good	77	48.1	31	51.6	46	46.0
Fair	15	9.4	12	20.0	3	3.0
Poor	0	0.0	0	0.0	0	0.0
Don't know/no answer	5	3.1	4	6.7	1	1.0
Total	160	100.0	60	100.0	100	100.0

Variety of products, while rated excellent or good by the majority, did not receive the frequency of high ratings as quality of products. The difference is sharper when comparing the markets; the variety at the larger Saturday market was ranked “excellent” by 50% and only 21.7% at the smaller Becker market. One effort on the part of vendors to improve the market would be to offer a greater variety of products. New farmers who sell different products should also be encouraged to participate.

#7c How would you rate the prices of products at the market?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	33	20.6	5	8.3	28	28.0
Good	93	58.1	33	55.0	60	60.0
Fair	22	13.8	12	20.0	10	10.0
Poor	0	0.0	0	0.0	0	0.0
Don't know/no answer	12	7.5	10	16.7	2	2.0
Total	160	100.0	60	100.0	100	100.0

Over half (58.1%) of customers said prices were good, yet more gave “fair” ratings to prices (those who claimed they did not know were often new customers). These responses reflect increasing costs of production and food prices. The clientele may differ at the markets as more Saturday market shoppers gave an “excellent” ranking and more Becker market shoppers gave a “fair” ranking. Education on the cost of transporting foods from outside the region would be especially important in regard to the costs of food production. Vendors could also play a role in educating customers on costs of production and offer comparative data with conventional prices of long-distance foods.

#7d How would you rate the availability of foods you like to cook and eat?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	52	32.5	8	13.3	44	44.0
Good	85	53.1	35	58.4	50	50.0
Fair	12	7.5	8	13.3	4	4.0
Poor	1	.6	1	1.7	0	0.0
Don't know/no answer	10	6.3	8	13.3	2	2.0
Total	160	100.0	60	100.0	100	100.0

The majority of customers at both markets rated availability of foods they like to cook and eat as excellent or good. This was higher for the Saturday market (94%) than the Becker market (71.7%), where more customers gave a ranking of “fair” (13.3%, vs. 4% at the Saturday market).

#7e How would you rate the availability of foods important to your cultural tradition?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	43	26.9	6	6.0	37	37.0
Good	79	49.4	28	46.7	51	51.0
Fair	13	8.1	9	15.0	4	4.0
Poor	3	1.9	2	3.3	1	1.0
Don't know/no answer	22	13.8	15	25.0	7	7.0
Total	160	100.0	60	100.0	100	100.0

A total of 85.6% of customers found availability of foods they like to cook and eat and 76.3% found foods important to their cultural tradition available at the market. The vast majority of customers are of European heritage, primarily Norwegian and German, with very few people of Asian, Hispanic, or African heritage who shop at the farmers' markets. While a small proportion did not rate this factor excellent or good, increasing variety and ethnic food ingredients would strengthen this factor even more.

#7f How would you rate the availability of new foods that you might like to try?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Excellent	23	14.4	4	6.7	19	19.0
Good	79	49.4	24	40.0	55	55.0
Fair	25	15.6	10	16.6	15	15.0
Poor	4	2.5	4	6.7	0	0.0
Don't know/no answer	29	18.1	18	30.0	11	11.0
Total	160	100.0	60	100.0	100	100.0

The largest percent (49.4%) stated that availability of new foods was “good.” Even so, 36.2% rated this factor “fair,” “poor,” or did not know. Increasing newer, unique foods could be desirable to increase variety of products, but more positive attitudes could be cultivated by vendors who provide information, preparation techniques, and recipes for these products. These are also strategies that would increase sales.

#8 What other products would you like to see in the market?

Of all shoppers, 32 of 60 at the Becker Market and 67 of 100 at the Saturday Farmers' Market were satisfied and mentioned no other items they would like sold at the market, or simply did not know of anything else they would add to the current availability. Nine of 160 wanted more ethnic foods. Availability of these would increase the rather poor participation of ethnically diverse people in the two markets. Another nine wanted more prepared, ready to eat foods. From conversations with customers, it is clear that more people would eat a meal at the market if more was available. Prepared foods would also draw in more customers. Seven expressed interest in greater variety of products. Eight customers wanted more fruit, especially strawberries and raspberries, seven customers (6 of these at the early morning Saturday market) recommended having coffee at the market, and six identified a desire for more tomatoes. Other items requested by only one or two customers each include: more fresh lettuce and cabbage, spinach, rutabagas, Jerusalem artichokes, cilantro, pinto beans, herbs and spices, pickled beets, goat and buffalo meat, fresh chicken and fish, and more fresh eggs. In terms of non-food items, customers requested seating, music, free samples, and recipes at the Saturday market, while customers at both markets wanted more craft booths (yet several people objected to these non-food items) and more flowers.

#9 How much do you plan to spend at the market today?

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Nothing	7	4.4	5	8.3	2	2.0
Up to \$5	12	7.5	5	8.3	7	7.0
\$6-10	41	25.6	17	28.3	24	24.0
\$11-20	60	37.5	18	30.0	42	42.0
\$21-30	25	15.6	9	15.0	16	16.0
\$31-40	10	6.3	4	6.7	6	6.0
\$41-50	3	1.9	1	1.7	2	2.0
More than \$50	8	1.2	1	1.7	1	1.0
Total	160	100.0	60	100.0	100	100.0

Customers who shop at the farmers' markets in general spend very little of their food dollars. The largest proportion, 37.5% plan to spend between \$11-20. Another 25.6% spend \$6-10 and 15.6% spend between \$21-30. These data suggest that a huge portion of family food dollars are spent on non-local foods at large chain stores and the fact that farmers earn very little, indeed, through farmers' market sales. Support, more advertising, and education to the values of buying local foods is imperative to augment the number of vendors and draw more customers. Supplementary events such as musical groups or other forms of entertainment would attract greater attention. Educational activities (booths, pamphlets, media presentations) could be coordinated with the markets themselves.

#10 What do you like best about the market?

	Becker #	Becker %	Saturday #	Saturday %
Satisfied/no comment/ don't know	9	15.0	5	5.0
Fresh produce	9	15.0	45	45.0
Social atmosphere, friendliness	17	28.3	16	16.0
Variety and availability of products	7	11.7	20	20.0
Local products	4	6.7	12	12.0
Location of market	5	8.3	7	7.0
Bakery/breads	7	11.7	1	1.0
Outside venue	4	6.7	3	3.0
Convenience	1	1.7	5	5.0
Fresh fruits	3	5.0	2	2.0
Entertainment value	1	1.7	4	4.0
Quality of products	1	1.7	3	3.0
Prices	0	0.0	3	3.0
Market schedule	1	1.7	2	2.0
Cleanliness	2	3.3	0	0.0
Venders	1	1.7	1	1.0
Unstructured, open atmosphere	1	1.7	1	1.0
Fresh flowers	1	1.7	0	0.0
Music	1	1.7	0	0.0
Prepared food	1	1.7	0	0.0
Uniqueness	1	1.7	0	0.0
Seating arrangement	1	1.7	0	0.0
Supports small businesses	1	1.7	0	0.0
Egg rolls	0	0.0	2	2.0
Sweet Corn	0	0.0	2	2.0
Pickles	0	0.0	1	1.0

Nine customers at the Becker market and five at the Saturday market were satisfied or could think of no improvements to the market, suggesting a very high degree of satisfaction. For the most frequent response overall, more Saturday market customers (45%) than Becker market customers (15%) identified fresh produce (particularly vegetables) as what they liked best. Clearly the next category that most satisfied customers was the social atmosphere and friendliness of the market—28.3% for the Becker Market and 16% for Saturday Farmers' Market customers. Those who best liked the fact that market foods were local stated they preferred home grown, home made items, and the fact that buying direct from local producers supports local farmers. Becker Market customers liked the central location, while Saturday market shoppers tended to appreciate the spaciousness of the market. Bakery items were more appreciated at the Becker Market, as noted above, by the presence of a popular artisan bakery stand. One Saturday market shopper noted that prices were better than at local supermarkets.

#11 What do you like least about the market?

	Becker #	Becker %	Saturday #	Saturday %
Nothing, don't know	32	53.3	70	70.0
Weather	9	15.0	5	4.0
Space, size of market	5	8.3	1	1.0
High prices	3	5.0	2	2.0
Hours of operation	1	1.6	3	3.0
Parking	1	1.6	3	3.0
Produce sells out too fast	1	1.6	2	2.0
Dislike non-food stalls	2	3.3	1	1.0
Lack benches, picnic tables	0	0.0	3	3.0
Location	1	1.6	1	1.0
Too few products	2	3.3	0	0.0
Lack of ready to eat food	2	3.3	0	0.0
Uncertain cleanliness of homemade goods	0	0.0	2	2.0
Distance from home	1	1.6	1	1.0
Lack of ethnic foods	0	0.0	1	1.0
Lack of fruits	1	1.6	0	0.0
Want more homemade goods				
Want more buffalo meat	1	1.6	0	0.0
Lack of coffee	0	0.0	1	1.0
Want breakfast served	0	0.0	1	1.0
Needs more seating	1	1.6	0	0.0
Needs more signs	0	0.0	1	1.0
Need prices displayed more clearly	0	0.0	1	1.0
Lack bathrooms	0	0.0	1	1.0
Children riding bikes through market	1	1.6	0	0.0
Inability to patronize all vendors	0	0.0	1	1.0
Appearance of some vendors	0	0.0	1	1.0

Again, a high proportion of surveyed customers (53.3% of Becker market and 70% of Saturday market) could not identify what they did not like about the market. Weather—beyond the control of market organization—was the single largest complaint. Customers mentioned rain, sun, and heat as factors. One suggested a back-up plan and two Saturday market customers suggested more canopies for shade. Future planning for a partial indoor facility would alleviate the need to dismantle the markets in case of heavy rain. Consideration could also be given to an all-year indoor market with winter produce provided by greenhouses. There is some interest in this expressed by several people. While few, those who identified spatial issues complained that the markets were too small; four of the five who mentioned this were Becker Market customers and one of those specifically said that there needs to be more shoppers. Consistently, customers at both markets who ranked other factors excellent or good, also ranked prices one category lower. The Becker Market customer who mentioned hours of operation wanted extended hours, while the three Saturday market customers complained about the early hours and wanted the market open an extended time. Parking was infrequently mentioned, but the three Saturday market customers referred to issues with the trucking company that had restricted parking access. Several customers (two at Becker and one at the Saturday market) complained that they did

not care for the non-food stall (crafts, jewelry, etc.). Although only three individuals complained of produce selling out too fast, it was noted that this was an issue at both markets. The Becker market provides picnic tables, but these are absent at the Saturday Farmers' Market; three individuals complained of this problem and it would be advisable to provide seating for market customers. Two customers at the Saturday market remarked that there is no inspection for homemade/home-baked goods and they were concerned about cleanliness. Other comments, each by a single customer, are itemized in the table.

**#12a What changes have you experienced because you shop at the market?
I eat more fruits and vegetables.**

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Strongly Agree	41	25.6	9	15.0	32	32.0
Agree	81	50.6	28	46.6	53	53.0
Disagree	22	13.8	12	20.0	10	10.0
Strongly Disagree	1	.6	1	1.7	0	0.0
Don't know/no response	15	9.3	10	16.7	5	5.0
Total	160	100.0	60	100.0	100	100.0

This set of questions taps behavioral changes. Over one-fourth strongly agree that they eat more fruits and vegetables and over 50% agree they do so. Saturday market shoppers gave higher rankings, 32% chose "strongly agree" vs. 15% at the Becker market and 53% chose "agree" vs. 46.6% at the Becker market. It may be that some of those who disagreed eat these foods irrespective of shopping at the farmers' markets.

#12b I eat more organic food.

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Strongly Agree	21	13.1	4	6.7	17	17.0
Agree	56	35.0	16	26.7	40	40.0
Disagree	57	35.6	26	43.3	31	31.0
Strongly Disagree	3	1.9	3	5.0	0	0.0
Don't know/no response	23	14.4	11	18.3	12	12.0
Total	160	100.0	60	100.0	100	100.0

Almost half (48.1%) either strongly agree or agree that they eat more organic food. Saturday market shoppers gave higher rankings for "strongly agree" (17% vs. 6.7%) and "agree" (40% vs. 26.7%). Of those who disagreed (37.5%), organic food appears to be less relevant than eating *local* food, or organic foods are less important to them. Nonetheless, for these and the 14.4% who were unsure, it must be recognized that it is not always clear whether purchased foods are organic or not. Some farmers raise foods organically, but without certification. One customer was observed to turn away from a stall when she inquired and received a negative reply that the products were not organic. It is highly recommended that vendors identify whether their products are raised as certified organic, organic but not certified, or under other sustainable production strategies. This interchange between farmers and customers should be highly encouraged.

#12c I eat fresher food.

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Strongly Agree	47	29.4	9	15.0	38	38.0
Agree	93	58.1	35	58.3	58	59.0
Disagree	8	5.0	7	11.7	1	1.0
Strongly Disagree	1	.6	1	1.7	0	0.0
Don't know/no response	11	6.9	8	13.3	3	3.0
Total	160	100.0	60	100.0	100	100.0

An impressive 87.5% strongly agree or agree that they eat fresher food because they shop at the farmers' market. Nonetheless, 38% of Saturday market customers chose "strongly agree" vs. 15% at Becker market.

#12d I eat less fast food.

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Strongly Agree	32	20.0	8	13.3	24	24.0
Agree	71	44.4	30	50.0	41	41.0
Disagree	30	18.8	11	18.4	19	19.0
Strongly Disagree	4	2.5	2	3.3	2	2.0
Don't know/no response	23	14.4	9	15.0	14	14.0
Total	160	100.0	60	100.0	100	100.0

Of those who strongly agree or agree, 64.4% claim to eat less fast food because they shop at the farmers' market. The fact that 18.8% disagree and 14.4% are unsure suggests the strong hold that fast, ready-prepared food has on the consumer. Here too, education as to the health, environmental, and economic impacts of eating fast foods is critical for supporting the local food system.

Note: #12 e-h were eliminated due to lack of understanding and repetition.

#12i I feel better about where my food comes from.

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Strongly Agree	3	39.4	16	26.7	47	47.0
Agree	80	50.0	34	56.6	46	46.0
Disagree	4	2.5	3	5.0	1	1.0
Strongly Disagree	0	0.0	0	0.0	0	0.0
Don't know/no response	13	8.1	7	11.7	6	6.0
Total	160	100.0	60	100.0	100	100.0

An overwhelming majority (89.4%) agrees or strongly agrees that they feel better knowing where their food comes from (83.3% at the Becker market and 93% at the Saturday market). This fact should be built upon in promoting the local food system in Kandiyohi County. This

effort can be supplemented by educating people on the health, environmental, and economic hazards of purchasing corporately-produced food.

#13 Number of people who live in your household.

#14 Number of children under 18.

	Number	Percent			Number	Percent
1	30	18.8		0	114	71.3
2	79	49.4		1	17	10.6
3	12	7.5		2	19	11.9
4	22	13.8		3	8	5.0
5	10	6.3		4	1	.6
6	3	1.9		6	1	.6
7	2	1.3				
8	1	.6				
Not answered	1	.6				
Total	160	100.0				

A most surprising outcome of the market survey is the fact that most shoppers (49.4%) live in households of two persons and 71.3% have *no* children. Another 18.8% lived alone. Only one-third (28.7%) live in households with children. There were few differences among Becker and Saturday market shoppers. Large numbers of people apparently are not seeking out healthier, locally grown food for their children. If these statistics represent an aging farmers' market clientele, this should raise concern about the healthy eating habits of the current generation of children. Strategies should be devised to get more parents to actively seek out local foods at the farmers' markets and to complement these by supporting to a greater extent the farm to school program. These data may also reflect a select clientele that views farmers' markets more as a niche market for environmentalists than a necessity to broaden the provision of healthy, local foods to the entire population, including children.

#15 Cultural/ethnic background.

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Caucasian	150	93.8	52	86.6	98	98.0
Hispanic	3	1.9	1	1.7	2	2.0
Asian	2	1.3	2	3.3	0	0.0
Native American	1	.6	1	1.7	0	0.0
Mixed	4	2.5	4	6.7	0	0.0
Total	160	100.0	60	100.0	100	100.0

While the categorization of cultural/ethnic background is arbitrary, these were entered to determine what populations are/not being served by the markets and whether ethnic foods are available to meet demand. The "Caucasian" category includes people with a wide range of European-based heritage, many of whom have specific interests in obtaining particular foods/ingredients. Clearly, ethnically diverse populations are not being served by either the Becker Market or the Saturday Farmers' Market. That only 6.2% of consumers represent non-Caucasian shoppers stands as a commentary on the inability of the markets to attract these populations and to serve their demands for ethnic foods. Obviously, much work needs to be done to 1) provide appropriate foods at the market to serve a culturally diverse

population; 2) encourage diverse people to market their goods; and 3) organize markets in additional neighborhoods where they may be more conveniently located for diverse populations.

#16 Income category.

	Number	Percent	Becker #	Becker %	Saturday #	Saturday %
Under \$9,000	8	5.0	5	8.3	3	3.0
\$9,000-14,999	7	4.4	6	10.0	1	1.0
\$15,000-21,999	12	7.5	1	1.7	11	11.0
\$22,000-27,999	10	6.3	4	6.7	6	6.0
\$28,000-35,000	11	6.9	3	5.0	8	8.0
\$36,000-49,000	22	13.8	4	6.7	18	18.0
\$50,000 OR MORE	55	34.4	25	41.6	30	30.0
Unknown/unanswered	35	21.9	12	20.0	23	23.0
Total	160	100.0	60	100.0	100	100.0

To better understand how income shapes purchasing preferences, customers were asked to identify their income category. While confidentiality was assured, many (21.9%) chose not to identify their income category. Setting these aside, among those who did respond, the largest proportion, 34.4% have incomes over \$50,000, suggesting a relatively wealthy clientele. A few indicated they were on social security and these tended to be under \$9,000. It could be advisable to find ways for the farmers’ markets to attract more people from lower-income households.

Cross-tabulations, Becker & Saturday market customer surveys

- Data for both markets are combined

How far you traveled to the market by how often you visited the market.

Distance in Miles	First time visited	Less than once per month	One time per month	Two times per month	Three times per month	Weekly	Total
under 1.00	6	2	3	3	3	11	28
1- 4.99	9	1	7	14	6	26	63
5- 9.99	4	1	3	4	0	6	18
10-19.99	11	2	4	2	3	8	30
20-29.99	4	0	3	1	1	0	9
30-49.99	3	1	0	1	2	0	7
50-99.99	2	0	0	0	0	0	2
100+	2	1	0	0	0	0	3
Total	41	8	20	25	15	51	160

These data illustrate what would be expected, in general, those who frequent to markets most often tend to live closer to them. Twenty miles appears to mark an important threshold, with under five miles drawing the most frequent weekly participation.

Do you feel better knowing where your food comes (rows) from by do you eat more fruit and vegetables (columns).

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know	Total
Strongly agree	33	24	6	0	0	63
Agree	6	56	12	1	5	80
Disagree	0	1	3	0	0	4
Strongly disagree	0	0	0	0	0	0
Don't know	2	0	1	0	10	13
Total	41	81	22	1	15	160

The higher proportion of responses that strongly agree or agree on both variables—knowing where food comes from and eating more fruit and vegetables suggests the importance of local fresh foods to shoppers and that the markets help them to acquire these.

Do you feel better knowing where your food comes (rows) from by amount of money you plan to spend today (columns).

	\$0	Up to \$5	\$6-10	\$11-20	\$21-30	\$31-40	\$41-50	Over \$50	Total
Strongly agree	1	6	15	23	11	5	0	2	63
Agree	2	6	24	30	11	5	2	0	80
Disagree	1	0	0	3	0	0	0	0	4
Strongly disagree	0	0	0	0	0	0	0	0	0
Don't know	3	0	2	4	3	0	1	0	13
Total	7	12	41	60	25	10	3	2	160

In contrast to the previous table, feeling good about knowing where their food comes from does not correlate with spending more money at the markets. Those who most strongly agree claim to spend the lesser amounts (most frequently below \$20). It will be important to learn why customers do not spend more of their food dollars at the farmers' markets.

Income category (rows) by amount of money you plan to spend today (columns).

	\$0	Up to \$5	\$6-10	\$11-20	\$21-30	\$31-40	\$41-50	Over \$50	Total
Under \$9,000	0	1	4	2	0	1	0	0	8
\$9,000-14,999	0	0	7	0	0	0	0	0	7
\$15,000-21,999	0	3	2	6	1	0	0	0	12
\$22,000-27,999	1	3	3	2	1	0	0	0	10
\$28,000-35,000	0	0	2	4	2	3	0	0	11
\$36,000-49,000	0	1	4	12	4	1	0	0	22
\$50,000 or more	3	2	10	21	11	4	2	2	55
Unknown /unanswered	3	2	9	13	6	1	1	0	35
	7	12	41	60	25	10	3	2	160

We would expect consumers with higher incomes to spend more at the farmers' markets. Consumer responses suggest that those with higher incomes tend to spend more at the markets, but not significantly more. Of those with incomes over \$50,000, 38% planned to spend \$11-20; this was the most frequent amount identified by members of 4 of the 7 income categories. The highest frequencies in the other 3 income categories were reported by customers with incomes under \$28,000.

Number of children (rows) by purchase of fruits and vegetables (columns).

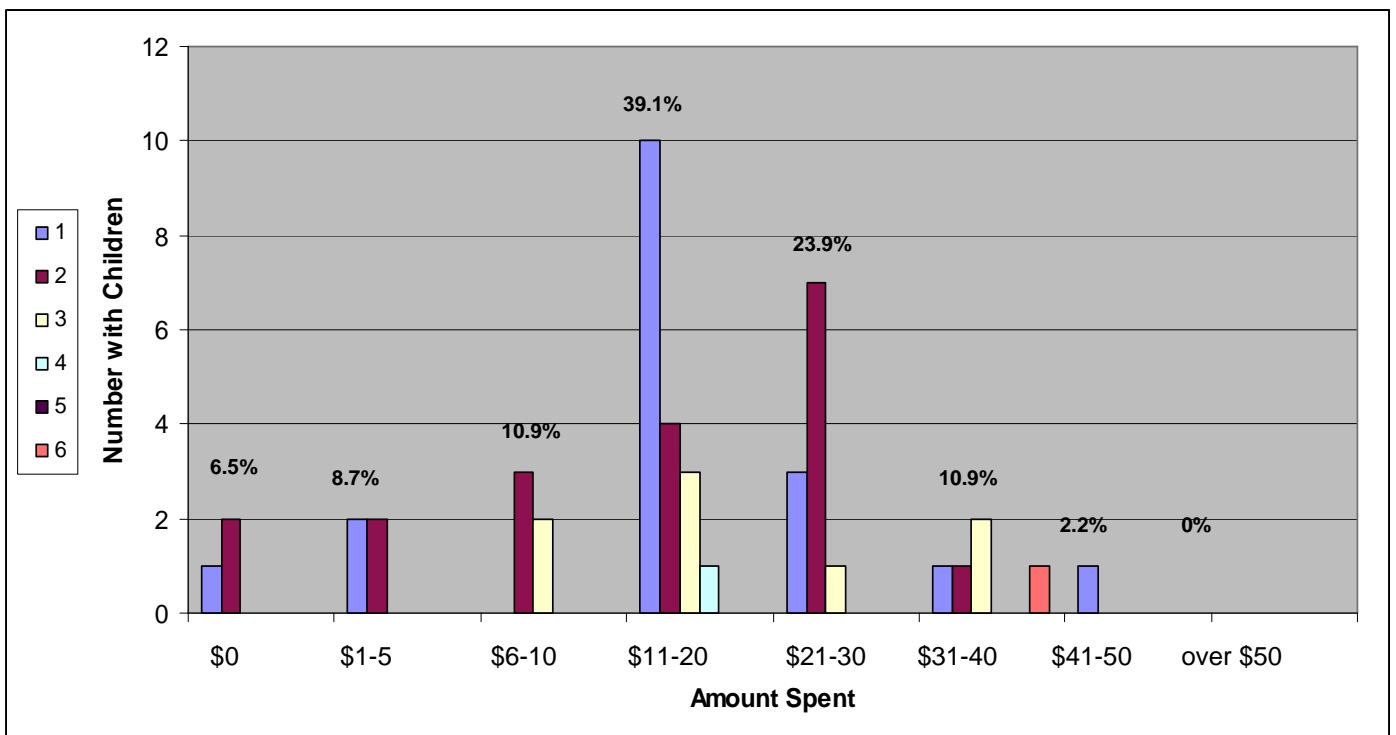
	Did not plan to buy fruits and vegetables #	Planned to buy fruits and vegetables #	% Who planned to buy fruits and vegetables (n=160)
0 children	25	89	55.6
1 child	2	15	9.4
2 children	6	13	8.1
3 children	1	7	4.4
4 children	0	1	.6
5 children	0	0	.0
6 children	0	1	.6
Total	34 (9 with children)	126 (37 with children)	

As indicated above, a large proportion of farmers' market shoppers do not have children. Yet these data indicate a somewhat alarming insight regarding availability of farm-fresh produce for children. While more parents with children planned to buy fresh produce compared to those who did not, a very limited number of children seem to be benefit from eating fresh produce from the farmers' markets. The suggestion of a children's booth and addition of educational materials that are entertaining for children might increase the number of parents who visit the markets and purchase healthier foods for their children.

Number of children (rows) by amount of money you plan to spend today (columns)

	\$0	Up to \$5	\$6-10	\$11-20	\$21-30	\$31-40	\$41-50	Over \$50	Total
0 children	4	9	36	42	14	5	2	2	114
1 child	1	2	0	10	3	1	1	0	17
2 children	2	2	3	4	7	1	0	0	19
3 children	0	0	2	3	1	2	0	0	8
4 children	0	0	0	1	0	0	0	0	1
5 children	0	0	0	0	0	0	0	0	0
6 children	0	0	0	0	0	1	0	0	1
Total	7	12	41	60	25	10	3	2	160

If amount spent at the farmers' markets indicates improvement in the availability of healthy, fresh produce, the data that correlate number of children with market spending is even more alarming. As seen in the following graph, of the 46 shoppers with children under 18 years of age, 6.5% planned to spend no money, 8.7% planned to spend \$5 or less, 10.9% planned to spend \$6-10, 39.1% planned to spend \$11-20, 23.9% planned to spend \$21-30, 10.9% planned to spend \$31-40, 2.2% planned to spend \$41-50, and none planned to spend over \$50. Again, the amount of food dollars spent to ensure children's healthy nutrition is less than expected. Education to teach children the values of healthy eating, encourage parents to spend more food dollars on local foods, and integrating these efforts with the farm to school program is highly advised.



Number of children (rows) by I feel better knowing where my food comes from (columns).

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know	Total
0 children	45	57	3	0	9	114
1 child	5	10	1	0	1	17
2 children	7	10	0	0	2	19
3 children	4	3	0	0	1	8
4 children	1	0	0	0	0	1
5 children	0	0	0	0	0	0
6 children	1	0	0	0	0	1
Total	63	80	4	0	13	160

Regardless of the fact that actual spending at the market is limited, across all customers with children, the fact that they know where their food comes from is important. With few exceptions, customers selected “strongly agree” or “agree,” suggesting that people are concerned about what they feed their children. This shared perception within the community not only should be supported, but illustrates that demand would most certainly be met if supply were increased.

Income category (rows) by I eat fresher food (columns)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know	Total
Under \$9,000	1	6	1	0	0	8
\$9,000-14,999	1	6	0	0	0	7
\$15,000-21,999	5	7	0	0	0	12
\$22,000-27,999	2	7	1	0	0	10
\$28,000-35,000	3	6	1	0	1	11
\$36,000-49,000	10	11	0	0	1	22
\$50,000 or more	14	32	4	0	5	55
Unknown /unanswered	11	18	1	1	4	35
Total	47	93	8	1	11	160

Of those who strongly agree or agree, 87.5% of customers with incomes under \$9,000 claim to eat more fresh foods because they shop at the farmers’ markets. Accordingly, 100% of those earning \$9,000--21,999, 90% of the 22,000-27,999 category, 81.8% of the 28-35,000 category, 95.5% of the \$36-49,000 category, and 83.6 of those earning over \$50,000 all strongly agreed or agreed. The value of fresh produce is clear from these data and even more support should be given to farmers’ markets and connecting consumers directly with farmers in other ways, such as CSAs, food cooperatives, and so forth.

Amount you plan to spend today (rows) by number of people in your household.

	Number in Household								n/a	Total
	1	2	3	4	5	6	7	8		
Nothing	0	1	2	1	2	0	0	1	0	7
Up to \$5	0	6	3	0	2	1	0	0	0	12
\$6-10	0	11	24	2	1	2	1	0	0	41
\$11-20	0	10	31	6	6	5	1	1	0	60
\$21-30	1	1	11	2	9	1	0	0	0	25
\$31-40	0	0	5	1	1	1	1	0	1	10
\$41-50	0	0	2	0	1	0	0	0	0	3
More than \$50	0	1	1	0	0	0	0	0	0	2
Total	1	30	79	12	22	10	3	2	1	160

An examination of the correlation of household members with spending at the markets does not strongly suggest that those with larger households tend to spend significantly more. Those who planned to spend over \$50 came from households of 2 or 3 people. Expected expenditures of those with three household members ranged most often from \$6-30, while households of 5 to 8 members, with a few exceptions, most often expected to spend \$30 or lower. One gap in information is a comparison of farmers' market prices with that of local grocery stores and supermarkets. Such a study could be worthwhile if prices tend to discourage purchases at farmers' markets.

I eat fresher food (rows) by I eat less fast food (columns) because I shop at the farmers' market.

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know	Total
Strongly Agree	25	12	6	0	4	47
Agree	6	57	18	3	9	93
Disagree	1	1	6	0	0	8
Strongly Disagree	0	0	0	1	0	1
Don't know /no response	0	1	0	0	10	11
Total	32	71	30	4	23	160

The proportion of those who strongly agree or agree that they both eat fresher foods and less fast food is 62.5%. Another 22.5% disagreed or strongly disagreed, and 15% did were not sure or did not answer. It appears that, not all, but the larger majority who seek fresh, local produce also tend not to eat fast food.

Appendix C. Resource Directory for Kandiyohi and Surrounding Counties

Sustainable Farms:

BC Gardens CSA

K. Botten & R. Capp
20355 408th Ave
Belgrade, MN 56312
(320) 254-8820
(888) 884-9766 (toll free)
bccgardens@willmar.com
Certified organic vegetables,
herbs, melons, seedlings

Bar J Ranch

30217 110th Ave
Brooten
(320) 346-2750
barj@tds.net
www.barjranch.com
Cattle breeding

Coyote Ridge Farm & Vineyards

Rich Radtke
6755 135th St NW
Kerkhoven, MN 56252
320-220-2235
info@coyoteridgefarms.com
www.CoyoteRidgeFarms.com
Cheese, bread, wines, ciders, vinegars

Double D Natural Meats

Bev & Don Struxness

14015 Highway 40 NW
Milan, Minnesota, MN
(320) 734-4877
dbstruxness@fedteldirect.net

[Dry Weather Creek Farm]

--currently closed
Mark Lange
8095 40th St NW
Milan, MN 56262
(320) 269-9617
dwcreek@fedteldirect.net
Goat dairy,
Certified organic grains, wheat berries

Earthrise Farm CSA

Kay & Annette Fernholz
2580 250th St - Apt A
Madison, MN 56256
(320) 752-4700
(320) 752-4293
erfarm@hotmail.com
www.earthrisefarm.org
Vegetables, herbs, strawberries, melons,
Chickens (pastured), eggs (omega-3)

Easy Bean Farm CSA

Michael Jacobs & Malena Arner Handeen
5075 100th Ave. NW
Milan, MN 56262
(320)793-6675
320-295-3001 (cell)
easybean@fedtel.net
http://www.easybeanfarm.com/easybean08_002.htm
Fruits, vegetables

Garden Goddess Greenhouse

Carol Ford & Chuck Waibel
405 S. 4th
Milan
newworld@fedteldirect.net
<http://gardengoddessnetwork.ning.com/>
Vegetables

Glacial Acres

Jeremy & Kelly Lanctot
17734 335th St
Sunburg, MN 56289
(320) 278-2002
jeremy@glacialacres.com
www.glacialacres.com
Certified organic apples, strawberries,
raspberries, melons, cherries,
vegetables, herbs

J&L Bison Ranch

John & Leila Arndt
5650 NW 41st Ave.
Willmar, MN 56201
320-235-8465
www.jlbison.com
Bison

Lester & Darin Johnson

Grove City
857-2841, 857-2916
320-212-5337 (cell)
Goats

Moonstone Farm

Richard Handeen & Audrey Arner
9060 40th Street SW
Montevideo, MN 56265
320.269.8971

moonstone@mvtvwireless.com

<http://www.prairiefare.com/moonstone/index.html>

[http://www.greenroutes.org/300 Moonstone Farm](http://www.greenroutes.org/300_Moonstone_Farm)

Grass-fed beef

Murphy's Organic Farm

Craig & Joanie Murphy
51487 320th St
Morris, MN 56267

(320) 392-5176

cjemuprh@fedteldirect.net

www.prairiefare.com/murphyhp

Certified organic beef, grains

Life Design Organics

Dale & Betty Noordmans

39041 County Road 2

Hancock, MN 56244

(320) 392-5925

(320) 766-0008 (cell)

organicfood30@hotmail.com

www.ruralsolutions.com

Certified organic beef (1/4, 1/2, & wholes),
poultry, wheat flour, oats

Pastures A' Plenty

Jim & LeeAnn VanDerPol

Josh & Cindy VanDerPol

4077 110th Ave NE

Kerkhoven, MN 56252

(320) 367-2061

(866) 260-2469 (toll free)

bighouseontheprairie@hotmail.com

www.prairiefare.com/pastureshp

Beef (grass-fed), pork (pastured),
chickens, eggs

Prairie Horizons Farm

Laverne & Mary Jo Forbord

29731 302nd St

Starbuck, MN 56381

(320) 239-4054

(320) 760-8732 (cell)

horizons@hcinet.net

<http://localfoods.umn.edu/prairiehorizons>

Certified organic beef

Rainbow Gardens

Aziz Ansari

Watson,

320-269-2211

Vegetables

Seppanen Organic Farm

Irene Seppanen

5769 Magnumson Rd SW

Alexandria, MN 56308

(320) 763-7736

Certified organic strawberries,
raspberries, vegetables

SL Simon Produce

8080 A60TH AVE NE

Kerkhoven

264-5354

slsimon@tds.net

Jorge Soto

Milan

320-226-2049

Goats (pasture fed)

Wilson's Organic Strawberries

Brian & Laura Wilson

8375 Sephney Lane

Alexandria, MN 56308

(877) 817-0331

U-pick • On-farm Certified strawberries,
raspberries

Processors:**Francisco's Pico de Gallo Salsa**

Francisco Morales

2000 9th St. SW

320-235-4275

Carlson Meat Processing, Inc

Chuck Carlson

105 N 2nd St

Grove City, Minnesota

(320) 857-2261

info@carlsonmeats.com

Beef, swine, buffalo, elk, deer, yak, emu, ostrich,
sausages

Wick's Meat Shoppe

Mark Stahl

209 4TH ST N.

Kandiyohi

320-382-6195

Belgrade Meat Center

408 Washburn Ave
Belgrade
(320) 254-8287
Sausages, niche market for tripe

J & K Meat Processing

131 Pleasant Ave N
Brooten
(320) 346-2414, (320) 346-2748, (320) 346-4281

S&K Meats

Brooten

Local Food Businesses**BIHI African Foods & Restaurant**

Mohamed Bihi, owner
212 5th St SW
Willmar, MN
(320) 235-0646

Culinary Seasons Catering

Nancy Johnson
aspenglowsetters@msn.com

Kandi Cupboard Food Coop

Lynnette, manager
412 Litchfield Ave. SW
320-235-9477
kandicupboard2003@yahoo.com

La Fiesta Grocery

Alberto Gasca, owner
307 3rd ST SW
Willmar
320-231-2264;

Rositas Restaurant

Alberto Gasca, owner
308 4th ST SW
Willmar
320-235-1072

El Tapatio Mexican Restaurant

1111 1st St S
Willmar, MN 56201
320-214-0444

Taqueria El Guerredito

Valentin Ciraco, owner
Kandi Mall
320-262-2253

Food-Related Organizations**Becker Market**

Beverly Dougherty & Nancy Johnson
320-222-2020
beverlydougherty@gmail.com
info@willmardesigncenter.com
www.willmardesigncenter.com

Commodity Supplemental Food Program (CSFP) /MAC/NAPS

Human Services Bldg
Hwy 294 NE, Willmar 56201
800-365-0270
Willmar

Community Garden

Sandra Schlagel, Master Gardener
Willmar Ave. & 7th St. SE
235-8120

Community Meals

Salvation Army
521 4th St. SW
320-235-2033
1-800-543-7709

Culinary Seasons Catering

Nancy Johnson & Bev Daugherty
252 60th Ave NE
Willmar, MN 56201
320-214-1331
aspenglowsetters@msn.com

Fare For All

800-582-4291

Farm Beginnings (LSP)

Amy Bacigalupo
320-269-2105
amyb@landstewardshipproject.org

Farm to School Program (WCRSDP)

Lynn Mader, Local Foods Coordinator
320-269-2943.
lynnmader@charter.net

Land Stewardship Project (LSP)

Terry VanDerPol
103 Nichols Ave
Montevideo, MN 56265
320-269-2105
lspwest@landstewardshipproject.org
<http://www.landstewardshipproject.org/>

Market Research/ Extension Educator

Ryan Pesch
218-998-5794
pesch@umn.edu

Minnesota Institute for Sustainable Agriculture (MISA)

411 Borlaug Hall
1991 Buford Circle
St. Paul, MN 55108-1013
office location: 413 Hayes Hall
University of Minnesota
(612) 625-8235
1-800-909-MISA (6472) (toll free)
emisamail@umn.edu
http://www.misa.umn.edu/Contact_Misa.html

Minnesota Bison Marketing Cooperative (AURI)

Frank L. Hendricks, President
25594 Jolanne Lane
Bovey, MN 55709
218-245-0160
pgbison@uslink.net
<http://www.auri.org/clients/MNbison.htm>

Pride of the Prairie

301 State Road Suite 2
Montevideo, MN 56265
(320) 269-2105
ispwest@landstewardshipproject.org
or communications@sfa-mn.org
<http://www.prideoftheprairie.org/>

Saturday Farmer's Market

Miriam Vande Steeg
Westside Liquors
1600 Litchfield Ave. E.
235-4847 or 354-5210

Sustainable Farming Association of Minnesota

Mary Jo Forbord, president
29731 302 Street
Starbuck, Minnesota, 56381
Phone 320-760-8732
<http://www.sfa-mn.org>

U of M Extension, Kandiyohi County

Mary Caske
Rhonda Wulf, Extension Educator
Kandiyohi County Bldg.
400 Benson Ave. SW, Suite G
231-7890
caske002@umn.edu
wulfr@umn.edu

USDA

1005 High Ave
Willmar, MN 56201
(320) 235-3540
Prairie Co RC & D 231-0008
Rural Development 235-5612

Willmar Area Food Shelf

Christie Kurth, Executive Director
624 Pacific Ave SW
Willmar, MN 56201
320-235-2641
wafs@willmarnet.com

Willmar Area School District Food & Nutrition Services

Annette Derouin, Director of Food & Nutrition Services
231-8521
derouina@willmar.k12.mn.us
<http://www.willmar.k12.mn.us/content/food-nutrition-services>

Willmar Community YES Greenhouse

Bob Palmer
Willmar High School
www.mnenergychallenge.org

YMCA Community Garden

Tim Daniels
YMCA, Lakeland Drive
timdaniels@kandiyymca.org

Community Agencies & Organizations:**Center for Small Towns**

Ben Winchester
600 East 4th Street
Morris, MN 56267
(320) 589-6451
benw@morris.umn.edu
<http://www.centerforsmalltowns.org>

City of Willmar Planning & Development Services

(zoning, infrastructure)
Gary Geer
320-231-6229
gary_g@co.kandiyohi.mn.us

Coalition of African Community Services Center

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320-223-3510
cacskc@qwest.net

Crossroads Resource Center (SCRSDP)

Ken Meter
P.O. Box 7423
Minneapolis, Minnesota 55407
612.869.8664
kmeter@crcworks.org
<http://www.crcworks.org/>

Economic Development Commission (EDC)

Steve Renquist, Executive Director
312 Fourth Street SW, Suite 2
PO Box 1359
Willmar, MN 56201
320-235-0850, ext. 1124, 800-922-1710
steve.edp@kandiyohi.com
www.kandiyohi.com/business/econdev.htm

Heartland Community Action Agency

Debra Brandt, Community Relations Director
Community Relations Director
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Willmar
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Institute for Agriculture & Trade Policy (IATP)

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Kandiyohi Family Services Office

Director Jan Kieft
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320-231-6232

Mid-Minnesota Development Commission (MMDC)

Donn Winckler, Executive Director
333 Sixth Street SW, Suite 2
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Phone: (320) 235-8504
Toll Free: 1-800-450-8608
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Ridgewater College

Dr. Doug Allen
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STEPS to a Healthier Willmar

Bobbi Jo Berg, Community Coordinator
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United Way of Kandiyohi County

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West Central Integration Collaborative

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West Central Regional Sustainable Development Partnership (WCRSDP)

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De Graff, MN 56271 Morris, MN 56267
320-760-3735 or 1-877-501-3735
rosemeie@umn.edu
www.regionalpartnerships.umn.edu

Willmar Area Multicultural Market (WAMM)

Roberto Valdéz & Lourdes Schwab, Coordinators
316 4th St. SW, Suite 3
PO Box 790
Willmar 56201
320-231-8546
roberto.valdez@swsc.org, 320-905-3966
lourdes.schwab@swsc.org 320-979-2272
www.WillmarMarket.com

Willmar Lakes Area Chamber of Commerce

Ken Warner, Executive Director
2104 East Highway 12.
Willmar, MN 56201.
320-235-0300
chamber@willmarareachamber.com
<http://www.willmarareachamber.com/>
The chamber has an agricultural committee

WIC (Women, Infants, and Children)

320-231-7860

Appendix D. Woodbury County Policies

Resolution Woodbury County Policy for Rural Economic Revitalization “Organics Conversion Policy”

Preamble

It is the policy of Woodbury County to promote the economic vitality, and public health and safety, of its rural communities. The “Organics Conversion Policy” is intended to increase per capita income, provide incentives for job creation, attract economic investment, and promote the health and safety of its citizens and communities.

Summary

Woodbury County will grant up to \$50,000 each year in real property tax rebate incentives for farms that convert from “conventional” farming techniques that use pesticides to “organic” farming that complies with the USDA ‘National Organic Program’ Standards and Regulations. The “Organics Conversion Policy” provides tax relief in order to offset costs associated with the three-year conversion period and organic certification, and recognizes the possible reduction or elimination of federal farm subsidies by reason of a conversion.

Organics Conversion Policy

SECTION 1.0 GENERAL POLICY PROVISIONS

Section 1.1 Amount of Real Property Tax Rebates

Woodbury County will grant Woodbury County residents up to \$50,000 in real property tax rebates per year for farms that convert from “conventional” farming techniques that use pesticides to “organic” farming that complies with the USDA ‘National Organic Program’ Standards and Regulations.

Section 1.2 Tax Rebate on Land Only

The tax rebates shall be only applied to taxes levied on the value of unimproved real property zoned as agriculture; there shall be no rebate under this policy for real property taxes levied on the value of improvements (i.e., homes or other structures) to real property within Woodbury County.

Section 1.3 Organics Conversion

The tax rebates shall be applied to farming operations that have used conventional farming techniques and are converting to organic farm production. The tax rebates shall also be applied under this policy for land that has been dormant, or not actively used for farming operations, and converting said property to organic farm production.

Section 1.4 Tax Rebate Program Participation Period

A tax rebate under this policy shall be awarded to a successful applicant (herein called a “participant”) each year for a period of five (5) years during which time that applicant must comply with the USDA National Organic Program Standards and Regulations. The land subject to the rebate must be actively farmed in accordance with said standards and regulations throughout that five (5) year period.

Section 1.5 Certification Required After Third Year Participation

A participant must be “certified organic” at the end of year three (3) of its program participation and maintain said certification for the remaining two (2) years of its program participation.

Section 1.6 Program Withdrawal and Return of Tax Benefits

A participant who has taken advantage of a real property tax rebate under this policy, and who subsequently violates the USDA National Organic Program Standards and Regulations

during any of the five (5) year participation period, or who has not received organic certification at the end of year three (3), shall immediately be liable for tax benefits received by reason of this policy, plus legal rate of interest from the date of conversion.

Section 1.7 Certification Authority

The recommended certifying agent for establishing compliance and organic certification is the Iowa Department of Agriculture and Land Stewardship (IDALS). However, a participant in this program may acquire organic certification from any USDA accredited organic certification authority. The initial organic certification and report, and any annual updates, will be the sole authority to determine compliance with the USDA National Organic Program Standards and Regulations under this policy.

Section 1.8 Initial & Last Year of Participation; Year of Rebate

The tax rebate shall be applied for unimproved real property, zoned as agriculture, in the initial calendar year of participation only if USDA National Organic Program Standards and Regulations have been complied with from January 1 of the first year of participation. A 'Declaration of Compliance' shall be signed and verified by the participant prior to each rebate distribution for participation years prior to organic certification and following annual reports. The tax rebate shall be distributed for tax payments actually made in the year of participation and shall be distributed to the qualified participant on July 1 and December 15 of each year. The intent is to provide immediate incentive even though payments in the first year of participation are actually assessed for the previous tax year by the Woodbury County Assessor's Office.

Section 1.9 Source of Tax Rebate

The Woodbury County Rural Economic Development Department will be the agent for initiating the tax rebate to qualified participants. Successful applicants will be required to sign a contract incorporating the obligations in accordance with the terms of this policy in order to be a participant in this program.

SECTION 2.0 APPLICATION FOR TAX REBATE UNDER POLICY

Section 2.1 Application Process

The Woodbury County Rural Economic Development Department shall make an 'Application Form' available to the landowners within Woodbury County on January 15, 2006. Woodbury County Rural Economic Development Department will need to receive the completed application no later than February 15, 2006 for consideration. Applications must be signed and submitted by the resident landowner who is of record with the Woodbury County Assessor's Office.

Section 2.2 Organics Board

The Woodbury County Rural Economic Development Department shall establish an "Organics Board" who will review all timely submitted applications under this policy. The Organics Board shall consist of the Woodbury County Director of Rural Economic Development and four additional members from the rural Woodbury County farming and business community. The Organics Board, as recommended by the Rural Economic Development Department, must be approved by the Woodbury County Board of Supervisors prior to the review of applications under this policy.

Section 2.3 Organics Board Duties

The Organics Board shall review each application to determine potential increase in employment, proposed markets for the organic products, relationship with other organic farming operations in the region, type of crop or agricultural product to be produced, potential increase in income, and other information provided in the application. The Organics Board has the authority to deny any application that fails to respond to any question, fails to provide

a viable business plan, or that discloses that non-residents will primarily benefit from the potential increase in profits derived from the conversion.

Section 2.4 Right of Appeal for Rejected Applications

If an application has been denied by the Organics Board, the unsuccessful applicant may appeal the ruling to the Woodbury County Board of Supervisors within fifteen (15) days from the mailing of said ruling. All hearings related to an unsuccessful application shall be public and upon sufficient notice as provided by law.

Section 2.5 Priority of Application Approval

The Organics Conversion Board shall allocate the total \$50,000 in real property tax rebates between multiple program applicants; with a maximum of twenty percent (20%) of said total available tax benefits going to any one applicant. Allocation of the total available tax rebates (\$50,000) shall be made by the Organics Conversion Board among all the applicants based upon review of all factors stated in Section 2.3; the best applicant proposals having priority in being awarded participation in the tax rebate program.

Resolution
Woodbury County Policy for Rural Economic Revitalization
“Local Food Purchase Policy”

Preamble

It is the policy of Woodbury County to promote the economic vitality, and public health and safety, of its rural communities. The “Local Food Purchase Policy” is intended to increase regional per capita income, provide incentives for job creation, attract economic investment, and promote the health and safety of its citizens and communities.

Summary

Woodbury County shall purchase, by or through its food service contractor, locally produced organic food when a department of Woodbury County serves food in the usual course of business. The Woodbury County Jail, Work Release Center, and Juvenile Detention facilities are presently serving food in their usual course of business. The contractor may cover for unavailable local organic supply through its current procurement practices with preference to be given local non-organic food products. An arbitration board shall be established to assure fair value to Woodbury County. A single-point-of-contact broker, located in Woodbury County, shall interact with food service contractor, for availability, price, quality, presentation and delivery terms of all locally produced organic food. The current food service contract shall be modified to carry out the intent of this policy. Purchases under this policy shall begin June 1, 2006.

Local Food Purchase Policy

SECTION 1.0 GENERAL POLICY TERMS DEFINED

Section 1.1 Locally Produced Food

‘Locally produced food’ is food that is grown and processed within a 100-mile radius of the Woodbury County courthouse, Sioux City, Iowa. The source of a grown food item, or of processing services, may be from beyond that 100-mile radius when sufficient supply, or service, is not available within that radius.

Section 1.2 Organic Food

‘Organic food’ is defined to include food that has been certified organic by an accredited certifying agency and compliant with the USDA’s National Organic Program standards and guidelines. Food that is being produced by farmers who are converting from conventional to organic production practices, and who are seeking organic certification, is also approved for purchase (i.e., transitional).

Section 1.3 Food Service Contractor

‘Food service contractor’ is defined to include Woodbury County’s existing food service contractor, CBM Food Services, and any assigns or successors.

Section 1.4 Single-Point-of -Contact Broker

‘Single-Point-of-Contact Broker’ is defined to be an incorporated farmer-run cooperative with its main business office located within Woodbury County, Iowa that primarily handles locally produced organic (or transitional) food products as defined hereunder. The only presently known broker to be formed is Woodbury Farm Foods Cooperative, with a business address of 1211 5th Street, Sioux City, Iowa.

SECTION 2.0 GENERAL POLICY PROVISIONS

Section 2.1 County Purchase of Locally Produced Food

Woodbury County shall purchase, by or through its food service contractor (hereinafter referred to as “Contractor”), locally produced organic food when a department of Woodbury County serves food in the usual course of business. The Woodbury County Jail, Work

Release Center, and Juvenile Detention facilities are presently the only departments serving food in their usual course of business.

Section 2.2 Organic Food Supply and Non-Organic Cover

Subject to the price and quality provisions contained within this policy, it is mandatory that Contractor purchase available supply of locally produced organic (and transitional) food from the single-point-of-contact broker (hereinafter referred to as "Broker") in accordance with Contractor's historical food needs. Contractor may revise recipes to include more local food if deemed more healthful or cost-effective. If the available local organic (or transitional) food supply does not meet Contractor needs, Contractor may look to cover shortfalls through its regular purchasing procurement policies; however, it is desired that Contractor look to local non-organic producers for cover, when practicable.

Section 2.3 Purchase Procedures

Contractor shall work with Broker to establish a timely notification procedure with respect to Contractor periodic demands and Broker delivery guarantees. If Broker is unable to guarantee delivery of a specified item of Contractor demand, there should be sufficient time provided by the procedure for Contractor to exercise cover. Contractor demand shall specify quantity, quality, presentation, and delivery terms.

Section 2.4 Price Terms

Contractor and Broker shall negotiate prices that are fair to all parties concerned for each item traded, and with accountability to Woodbury County Board of Supervisors, as stated herein. It is preferred, but not mandatory, that the overall annual food cost to Woodbury County will not increase by reason of this policy. The price to be paid Broker for a particular food item, if cost is higher for locally produced organic food, shall be established by the following guidelines:

Section 2.4.1 Guidelines for Establishing Item Cost

- (a) The price for a particular food item shall reflect the fixed and variable costs of production, anticipating a reasonable profit to the local farmer, and include reasonable commission to Broker.
- (b) The price for a particular food item under this policy can be compared with the price a farmer (who supplies Broker) charged for the same item to other buyers over the previous 12-month period. Broker must justify any increase in price to the Contractor.
- (c) Contractor shall consider the cost of a particular item in view of the overall contract cost (i.e., another organic item may cost less, so the overall contract cost to the County is the same).
- (d) Fair market value for the food item may be established through comparable sales in comparable markets (i.e., local supermarket price, or the price charged for an item by other Midwest food brokers, wholesalers, and retailers).
- (e) Special attention shall be given if there is material increase in price over what Contractor would otherwise pay for a similar item.

Section 2.4.2 Guidelines for Woodbury County Policy Review

- (a) Woodbury County, through the Organics Board, shall review the costs of this policy in terms of food costs every 3 months to determine if costs to the County under this policy exceed existing contract price. A report to the Woodbury County Board of Supervisors will be provided on a quarterly basis.
- (b) If the overall food service contract cost increases as a result of this policy, the higher cost can never exceed the expected benefits of the policy to Woodbury County. In determining the value of the policy to Woodbury County, it is accepted as general principle that dollars expended locally will circulate within the regional economy.

(c) Woodbury County will consider the impact of this policy on the reduction of health care costs related to inmates, behavioral changes of inmates, and other factors that may potentially reduce costs to Woodbury County.

(d) If the policy results in job creation by Broker, expanded markets for local organic products, or results in increased organic food production within the county, Woodbury County will compare the increase in costs under this policy with comparable costs associated with other forms of economic development tools to determine reasonableness of the increased costs.

(e) Allowances will be made for the learning curves of local producers and suppliers to meet county demand.

(f) It may be acceptable for the county to endure higher costs in the short term if there is clear evidence that in so doing, economics of size are being built that will reduce costs in the long term.

Section 2.5 Arbitration Board, Non-Binding Arbitration

An Arbitration Board shall be established by Woodbury County to hear any disputes between Contractor, Contract-Broker, or Woodbury County in the operation of this policy. Dispute resolution shall be by "non-binding arbitration". Woodbury County directly, or by and through Contractor, reserves the right to reject a proposed purchase of locally produced organic food.

SECTION 3.0 SPECIFIC OBLIGATIONS OF PARTICIPANTS

Section 3.1 Special Obligations of Contractor

Section 3.1.1 Food Service Contract

Contractor has existing obligations to Woodbury County pursuant to the Food Service Contract. Except as to modifications mandated by this Local Food Purchase Policy, Contractor obligations shall remain in full force and effect under its existing Food Service Contract with Woodbury County. Woodbury County and Contractor shall review the existing food service contract and make such modifications as are necessary to implement this policy.

Section 3.1.2 Policy Initiation and Planning

The initial purchase of locally grown organic food shall begin on June 1, 2006. Contractor and Broker, from the time of the adoption of the policy to June 1, 2006, shall develop a reliable and efficient process that will facilitate the purposes of this policy. Woodbury County, Contractor, and Broker shall also work during this time to develop reporting schedules from which to judge the success of this policy, as further specified in Section 4.2 below.

Section 3.1.3 Recipes and Food Quality

It is encouraged that Contractor review recipes, and to increase the locally grown organic food content, when such modification would be more healthful and would reduce or not substantially increase the total contract costs.

Section 3.1.4 Reporting to Woodbury County of Food Costs

Contractor is required under this policy to report to the Woodbury County Rural Economic Development Department, on a quarterly basis, with its first report on September 1, 2006, any increase or decrease in price it has paid for locally produced organic food as compared with the cost of similar items that it would have had to purchase if Contractor followed its standard procurement practices.

Section 3.1.5 Contractor Notice or Rejection of Increased Price

Contractor may request of Broker a justification of price if materially higher than it would otherwise pay for the food item. Contractor reserves the right to reject the sale if price is materially higher, without justification, than it presently pays for similar items taking into account the factors set forth in Section 2.4.1.

Section 3.1.6 Local Non-Organic Food Purchase As Cover

Contractor is required under this policy to purchase locally grown organic (and transitional) food to the extent that supply is available. Contractor is encouraged to consider the purchase

of locally grown non-organic food when the locally grown organic supply cannot fully meet Contractor demand for a particular food item.

Section 3.2 Special Obligations of Broker

Section 3.2.1 Broker Organization

Broker must be a cooperative, preferably an Iowa Code 501A organization, that maintains standard liability insurance and designates a single contact to Contractor through whom all communications shall be made. The Broker must consist of a Board of Directors with at least 50% of the Board of Directors being farmer-suppliers to the cooperative.

Section 3.2.2 Periodic Publications of Demand and Supply

Broker shall publish in a conspicuous place, at its main place of business, the Contractor listing of all food items purchased by Contractor over the previous 12-month period. Broker shall also publish in a conspicuous place, at its main place of business, and by email to farmer members (if farmer has such email service), a copy of Contractor periodic demand for food items; said notice shall be given within 18 hours of Broker receipt.

Section 3.2.3 Certification and Transitional Farm Products

Broker shall deliver only certified organic products, or products from farms that are transitioning to certified organic, in accordance with the USDA's National Organic Program standards and guidelines. Transitional farm products are those produced by farmers who currently employ organic practices in accordance with USDA standards, but cannot qualify for organic certification until a transitional period is completed. Broker shall verify farmer certification and verify transitional farm organic practices.

Section 3.3 Special Obligations of Woodbury County

Section 3.3.1 Maintain Listings of Organic and Non-Organic Farmers

Woodbury County Rural Economic Development shall compile contact information and production data for all farmers who supply food items to Broker. Woodbury County will also maintain a listing of non-organic farmers, located within the 100-mile local food radius, who want to make their crops available for purchase by Contractor as cover for unavailable organic supply.

Section 3.3.2 Additional Markets for Local Food Production

Woodbury County Rural Economic Development shall investigate markets, beyond that which is established by this policy, for local food producers and shall publish opportunities that become available and known to Woodbury County. One goal of this policy is to provide an example to local school districts, and other institutional consumers of food products, to consider establishing local food purchase policies that will promote health and improve the local farm economy.

SECTION 4.0 REPORTING PROVISIONS AND POLICY DURATION

Section 4.1 Monitoring Impacts of Policy and Reporting Schedule

Woodbury County shall monitor, on a quarterly basis, the impacts of this Local Food Purchase Policy to determine overall benefits and costs to Woodbury County taxpayers. Reporting from Contractor and Broker, as provided in Section 4.2 below, shall provide most of the information needed to accurately monitor the success of this policy.

Section 4.2 Producer and Product Purchase Reporting

In exchange for County efforts to promote local food sales, Contractor and Broker shall provide a joint report to Woodbury County Rural Economic Development Department, on a quarterly basis, that supplies the following information:

- (a) What are the costs of food purchased by Woodbury County that were sourced by local and non-local, organic and non-organic sources;
- (b) How much value-added food products did the Broker produce and how much of this used products from local producers;

- (c) What percentage of Broker's business is devoted to filling the Woodbury County food service contract;
- (d) Amount of production costs of producer-members that are spent locally;
- (e) Dividends returned to producer members;
- (f) Labor statistics to determine increase in jobs and wage information;
- (g) Farm and producer information that will disclose acreage devoted to organic production practices, type of product sold, value of organic sales per producer, and other information as requested by Woodbury County needed to determine success of this policy.

Section 4.3 Policy Duration

The Local Food Purchase Policy shall be in force until amended or revoked by Woodbury County. Woodbury County reserves the right to amend, or revoke, this policy for any reason.

Appendix E. Survey of Attendees for the Ken Meter Presentation

“Growth in Local Food Economies Program Survey Summary” July 8, 2008, Willmar, MN

1. The most valuable thing I learned today is (responses follow):

- ★ That there is a Kandiyohi County Food System steering committee
- ★ I’m interested in successful models, of which there were a few
- ★ I didn’t know there was a local group focused on increasing local food production and consumption
- ★ Local food improves local economies, as well as health, environmental and general welfare
- ★ Traditional farming is a financial black hole
- ★ Local foods is a real economic tool
- ★ The different organizations and programs in the area
- ★ All the details involved in locally grown produce—health, financial, connections and how important it is
- ★ How local foods can be important part of community economic development
- ★ Progress is being made
- ★ That building sustainable local foods systems is essential to developing strong economic communities
- ★ Great information—really an eye opener for me!
- ★ To hear about how “a farmer” can sell, grow local

Evaluations of the Ken Meter event on 7-8-08 in Willmar reveal that many people, even those most interested in the food system, are unaware of the work of the steering committee, and other efforts to promote local foods. More effort should be directed to making this initiative familiar to community members and strategies need to be devised for making the project better understood. This would pull more people into collaborative networks, which have proven in other areas to be a key to success for local foods projects. Efforts should be directed not only to advertising our efforts, but to informing people of the essentialness of the project and to devising ways to generate more community participation. When community members feel that they can become effective members of the project, they will be motivated to take an active role.

The fact that local foods can be an important tool for local economic development impressed a number of participants in the event. Given that this is a new realization for some, the connections between farming and local economic development need to be emphasized and more people need to become educated as to why and how this is so. Planning more events to educate a broader range of people will expand commitment to local foods efforts. Along with the economic advantages, comments by participants suggest that it is important to create more awareness that the different components of the food system—economic, environmental, cultural diversity, social equity, health, and nutrition, are inter-related and have synergistic impacts. Such an effort would also heighten awareness of why conventional agriculture is no longer sustainable. Participant responses make clear the need for more examples of successful models and how they can be put into practice in Kandiyohi

County. The assessment may be one venue for offering other success stories, and workshops of various sorts can offer education on strategies for sustainable farming, marketing, and processing. It would be worth while for the committee to make this effort to plan additional events, which in turn, would engender more community participation.

2. I believe the program's presentation could have been strengthened by:

- ★ More in depth discussion/dialogue of statistics presented....opportunity to challenge "casualty" deduced from those statistics by presenter(s)...Great examples of best practices in Midwest
- ★ Warning us about the additional speakers which brought us way over 8:30; some of us don't have all the time in the world; last names need to be used when persons are referenced
- ★ Difficulty of attending due to work schedule
- ★ Presence of local office holders, economic development and chamber of commerce people
- ★ A more diverse audience
- ★ More from local farmers, local businesses offering locally grown products
- ★ More advertising
- ★ More questions for the presenter—formulated before the presentation
- ★ More time
- ★ More education to understand central importance of issues, discussion, open forum

Based on participants' evaluations of the event, clearly, time is a constraint in planning events to educate the public on the local food system. Nonetheless, clearly more events are needed and desired. While an early morning meeting may be convenient to some, evening meetings should be considered as an alternative (with perhaps both morning and evening events). From comments made, it would appear advisable to hold more, yet shorter events, perhaps limiting each to one speaker. Definitely, time for in-depth discussion needs to be provided. A number of evaluations stress the need to broaden participation; in this respect, specific invitations should be made to farmers, business people, local officials, Chamber of Commerce members, etc. Diversity would encourage critical viewpoints to be expressed and enhance alternative ways of thinking about the food system.

While only one participant stressed the need for dialogue on the causality of the current food system, understanding the historical underpinnings of transformations within the U.S. food system—from the predominance of family farming to the elimination of farming as an occupational category in the U.S. census, from the corporate control of agriculture to the groundswell of movements to take back the local food system, from chemically dependent, genetically modified crops to sustainable agriculture—is essential, yet many consumers are not well informed about how these transformations impact our local food system. Multiple events that engage diverse participants within the food system aimed at exploring these factors would generate much community interest and should be encouraged.

3. I plan to take the following actions:

- ★ Buy more food locally; continue to inform myself and act accordingly; share what I learn
- ★ Raise the issue of introducing local producers to local grocers/restaurants at the county EDL
- ★ Continue to encourage/buy local foods
- ★ Continue making connections to help grow our greenhouse

- ★ Frequent farmer's markets more often
- ★ Would like to become more involved in promoting local foods
- ★ Support and buy locally grown produce
- ★ Support the assessment process
- ★ Educate people on value of local foods
- ★ I liked the presentation by Rob Palmer about the Willmar greenhouse. I have mentioned starting a school garden or greenhouse to some faculty at my daughter's school and this is something I would like to pursue further.
- ★ Talk to county board officials re: county plan i.e.) jail, also wonder about encouraging contracted providers to buy local
- ★ To research about how to buy and grow local

Participants attending the Ken Meter event overwhelmingly express interest in community activism. Interests were identified in three areas: 1) personal—changing personal behavior by buying local and educating themselves; 2) advocacy—encouraging others to buy local and actively advocating local foods to institutions, county officials, and aiding the assessment process; 3) support of specific projects, in particular greenhouses and farmers' markets.

These intentions need to be encouraged by identifying paths through which inspired individuals can become a part of the local foods movement. One example might be the formation of interest groups that channel their efforts on a particular issue (building a greenhouse; proposing policies to county officials; sponsoring educational events; working with an institution such as a hospital on local foods purchases, etc.) The Assessment Faculty Fellow will contact each participant, but additional steps should be made to engender broader community participation.

4. Do you have suggestions for the Kandiyohi county Food System Steering Committee in planning a follow up session or event? If yes, please comment.

- ★ Strategic plan to inform the broader public “frame” the message and utilize media; strengthen existing “farm and food network” system in West Central Minnesota; the “homeland security” frame seems to make sense
- ★ More diverse presentations— Food Security, Energy Costs, Carbon Footprint, Local Economics, Building Community
- ★ Keep involving kids in Yes and other projects; take it to the faith communities too
- ★ As suggested, local meeting economic development commission with local producers, retailers
- ★ Perhaps have an event similar to “A Taste of MN”
- ★ Kandiyohi County Fair; local community events; education and promotion
- ★ Try to have representatives from grocery stores, restaurants, schools, hotels from surrounding counties attend the meetings so they can hook up with producers of their counties who might also be attending the meeting and they can form a partnership.
- ★ Bring together more stakeholders i.e.) Ministerial Association, Foster Care providers
- ★ Send out mailing (email) so people can attend

Participants suggested diverse strategies for the Kandiyohi County Food System Steering Committee. Based on these suggestions, the steering committee should consider a number of strategies for planning future events, in addition to those suggested above. As pointed out in #2 above, future meetings should incorporate a more diverse audience to avoid “preaching to the choir.” Comments support engagement between these diverse actors, such

as farmers, retailers, and those involved in community economic development. Such engagements would be greatly beneficial in identifying the opportunities and constraints among factors of supply, distribution, and demand of local foods. Those involved in the faith community and social services would offer strategic insights as to needs that might otherwise be overlooked. According to feedback from participants, not only should diversity be sought within particular events, but the events themselves could focus on diverse aspects of the food system, such as food security, creating connections between farmers and grocery stores, restaurants, schools, hotels, so as to explore possibilities for networking and creating partnerships to effect change. The involvement of children in promoting a local food system appears relevant to participants, not only to improve their health and nutritional status, but to provide positive outlets for youth activities, and to influence parents. The breadth of outreach supported by participants would also imply extending beyond Willmar to the entire Kandiyohi County.

Other than programmatic aims, evaluations also address publicizing local food efforts through increased use of the media (perhaps newspaper, radio, and television coverage of events), having a visible presence at community events (such as the county fair, Willmar Blend, and celebrations of culture, food, music, and entertainment). While planning takes time and coordinated effort, such events should be a particular focus for opportunities to promote local foods. A number of venues (again, newspaper, radio, television, strategically placed posters, email lists of willing list servers) could promote these events.