

Hiawatha's Pantry Project

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The Economics of Food & Farming in Southeast Minnesota

compiled by

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Finding Food in Farm Country

by Ken Meter and Jon Rosales

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1. The 8,436 farms in Southeast Minnesota sold **\$866 million** of farm products in 1997.

2. However, the region's farmers spent **\$947 million** raising this food. This is **\$80 million** more than they earned by selling their products!

Finding Food In Farm Country

Southeast Minnesota FACT SHEET

3. Even more troubling, Southeast Minnesota farm families spend about **\$400 million per year** purchasing inputs and credit from distant suppliers. Very little of this money builds wealth for local families.

4. Meanwhile, the 303,256 residents of Southeast Minnesota spend **\$506 million** buying food, almost all from producers outside of the state.

This means as much as **\$800 million** each year flows out of our agricultural region as local families **grow** and **buy** food. Almost none of this money builds wealth in our neighborhoods. **Creating our own regional food system** is one way to reduce these losses.

If you would like to learn more, read our full report, *Finding Food in Farm Country*.

Sources for this fact sheet: Bureau of Economic Analysis (1997); Minnesota Department of Agriculture (2000); Food Industry Institute (1999); and Bureau of Labor Statistics (1997). Data compiled by Ken Meter, Crossroads Resource Center, and Jon Rosales, Institute for Social, Economic and Environmental Sustainability, University of Minnesota, 2001.

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Executive Summary:

Finding Food in Farm Country

The majestic limestone bluffs that tower above the Root River in southeastern Minnesota overlook some of the most lovingly tended farm acreage in the state. Still, it is not as easy as one would think to find healthy food to eat.

Here, in the heart of a strong agricultural region that produces nearly a billion dollars worth of food annually, the town of Houston recently spent two years without a grocery store. Two Plainview women who wanted to assure that fresh-cooked meals could be created from organic foods took the bold step of starting their own restaurant. A cluster of organic growers near Oak Center has labored persistently for two decades, against great odds, to raise organic produce for an expanding urban market.

It is not apparent on the surface why, in the midst of one of the most powerful agricultural systems in the world, such relatively fragile and small initiatives would even be necessary. The purpose of this report is to search for an explanation. Although a comprehensive answer is beyond the means of this study, some powerful facts have been uncovered.

Our key finding is that the existing economic structures through which food products are bought and sold **extract about \$800 million from the region's economy each year**. All this money, currently earned by Southeast Minnesota residents, is spent in ways that weaken the capacity of the region to build wealth for its citizens. This is a significant loss, an amount equivalent to ten percent of all household income earned by the region's 303,000 residents.

An economic overview of the farm and food economies of Southeast Minnesota (the seven-county area including Fillmore, Goodhue, Houston, Mower, Olmsted, Wabasha and Winona Counties), this report offers a perspective that is typically overlooked. Most studies look only at a single business, a particular economic sector or industry, or a specific consumer market. Our approach is to view the region's economy from the viewpoint of the region itself. We pose the question, what is best for Southeast Minnesota as a whole?

One way of addressing this question is to examine aggregate farm income data for the seven counties. The region's 8,436 farm families earned a total of \$122 million in net farm income in 1997, an average of only \$15,000 per farm each year. However, this income was essentially earned through activities other than crop cultivation or animal husbandry. Farmers relied on rental income, custom service work, government payments, and investment income merely to cover these costs of

production. Of course farm families also earned additional income by working off-farm jobs, but that income is not included in these totals.

In short, despite having invested heavily in technology that enables them to reap immense harvests, and despite spending nearly a billion dollars a year to raise crops and animals to sell to some of the wealthiest corporations in the world, many of the region's farm families live dangerously close to poverty levels.

Overall, the region's farms earned \$866 million by selling crops and livestock in 1997. However, this was \$80 million less than they paid to grow those products. More troubling, nearly half of these production costs were devoted to purchasing inputs from distant suppliers, or paying loan interest to distant creditors who do not reinvest in their community – a loss of an estimated \$400 million each year. As a result, farmers pay for a process that weakens their own power over the resources required to produce food.

This has brought tragic consequences. More than one quarter of the region's farmland is absentee-owned. Both lending institutions and farm marketing channels are increasingly owned by more distant corporate owners who have no commitment to invest in the region, since their attention has turned to global markets.

Although Southeast Minnesota's farmers hold what economists would call a competitive advantage in the global market for producing crops and livestock, these findings raise the question of whether it is in the self-interest of the farmers themselves – or of the communities they live in – to exercise this advantage. Global interdependence appears to create new losses, rather than new wealth, for the region.

International trade policies have undermined commodity prices that were already low, and global economic uncertainty has weakened foreign markets that were once reliable to the region's growers. Corporate mergers in the food processing industry increasingly come under closer scrutiny for failing to add value to either farmers or stockholders.¹

Moreover, the erosion of the farm economy affects the entire region, which is essentially losing its capacity for ownership. IRS data show that the region's aggregate household income from interest, rent and dividends fell 40 percent from 1990 to 1997, a decline from \$358 million (adjusted for increased costs of living) to \$213 million.² Although the essential promise of capitalism is that American citizens will be able to earn income from capital, that promise rings hollow in the Southeast region.

This data is especially stark in the face of troubling trends in mainstream farming practices. The number of dairy farms is falling drastically, which poses additional harm to the region's ecology. As small dairy farms go under, less crop rotation is practiced, so fewer farmers raise pasture crops or apply manure to help build their soil. Less rotation means more row crops. With prices of oil and natural gas soaring, the farm chemicals derived from petroleum are so costly that farmers are switching to soybeans since these require fewer chemical inputs. However, this contributes to

¹ Minneapolis *Star Tribune* (2001). "Consolidation at both ends of food chain yields worries about future sustainability." January 14, D1.

² Internal Revenue Service (1990, 1997). County Income data file.

erosion of the region's fragile soils. Already, the region is one of the most vulnerable in the state to water contamination from farm runoff.

While farm production is a key aspect of the region's food economy, Southeast Minnesota is also an important region of food consumers. With 120,000 households eating three meals a day, the region spends over \$500 million each year buying food. Yet only \$2 million of this spent buying food directly from farmers.³ Moreover, although data are sketchy, we estimate a total of more than \$400 million of these purchases heads outside the region. Wealth, once again, is built *outside* the region rather than *in* the region's communities.

Of course, food processing also plays a significant role in the southeastern region. Twenty percent of the region's manufacturing income derives from food processing, and one third of all retail sales involve food. Adding value to locally raised farm products and paying relatively higher wages than farm labor or retail sales, processing does build some local wealth, but only to the extent local producers and workers earn adequate income, or corporate ownership is locally held.

As local capacity for wealth creation erodes, exceptional pressures are placed on the region, demanding it be more self-reliant. In response, a variety of citizen's initiatives have emerged, expressing both consumer demand for healthier food and farmers' concern over the supply of their primary resource, the soil. This report begins by offering a glimpse of three such initiatives: the Root River Market in Houston, Rebekah's Restaurant in Plainview, and Full Circle Cooperative in Oak Center.

Following an economic overview, the report turns its attention to Northeastern Iowa, where two farmers groups have organized to take the unusual step of raising farm produce for their immediate neighbors. The experience of these new businesses – Sunflower Fields Farm CSA and the GROWN Locally farmers' cooperative – has shown that a hunger for healthy food exists, even amidst farm families in the heartland. Southeast Minnesota farmers may wish to learn from this story how to build similar networks in their region.

This report does not suggest the region would wish to build a wall around itself in an effort to close itself from the broader world. All four of the citizens' initiatives described here connect to the global economy, and all draw upon lessons learned in other locales. What makes each initiative effective is that each builds connections among community members, and each builds wealth that takes root in the local community.

Nor does this report suggest that expanding local food production and processing is the sole answer to reducing the flow of money out of the region. But food has shown itself to be a powerful force in building social connections. It is unlikely the region can achieve greater self-reliance without reconfiguring the ways food moves from farm to table.

This report closes by offering a detailed resource guide for farmers who may wish to direct their efforts to raising food for their local neighbors, or who wish to explore sustainable farming practices. Farms inside and outside the region that have pioneered in selling their produce directly to local consumers are listed, along with state agencies, resource groups and web sites offering practical information to farmers in transition.

³ U.S. Agricultural Census for 1997. Viewed at <<http://govinfo.kerr.orst.edu/ag-stateis.html>>, February 26, 2001.

Local food initiatives

Root River Market (Houston)

When Houston's last grocery store closed in 1998, no other firms moved in to fill the gap. So a group of nine residents decided to take matters into their own hands. In July, 1999, they formed a locally owned cooperative grocery business. Not only did they reason that the town required a grocery store of its own, the group also wanted healthier food choices.

"The grocery store in most towns is the center of the business community," said Tony Denstad, manager of the Root River Market, which opened November 7, 2000. "If there is no grocery store that hurts all the other businesses." Without the grocery store drawing customers to the business district, folks shop elsewhere. And, Denstad adds, "everyone eats every day."

Within a few months, the nine founders had enrolled 350 of their neighbors to join the cooperative – a wide majority of the local adult population of this town of 1,000. Each member purchased a \$100 share. As other investments were attracted, the coop built an impressive initial capital fund of \$180,000. The coop opened as a mid-sized store of 8,000 square feet.

There are three grocery stores in nearby towns, but each is at least twelve 12 miles away. Moreover, the new store, planned by local folks, offers more services than a typical grocery. The Root River Market aims to become a full-service food cooperative.

"We're a community store," Denstad stated. "We give service, and we wait on our customers." The store delivers food to seniors. In six months the coop hopes to add a selection of "whole" (healthier) foods, and to feature local produce.

Rebekah's Restaurant (Plainview)

Forty miles to the northwest of the Root River Market, on the table flat prairies of Plainview, an historic Odd Fellows Hall on West Broadway hosts a new café called Rebekah's. Owners Paula Wheeler and Diane Lutzke buy food from 13 local producers, purchasing more than \$15,000 of fresh food annually. Rebekah's cooks all meals from scratch. Changing daily according to the available harvest, the menu cycles through the seasons.

"People think it is more difficult to buy from local farms since you have to deal with so many more businesses," explains Wheeler. "You can't just place one single order and have it delivered. To us, that is the fun part. We see our neighbors on a regular basis. We see their children grow. We know how they raise the food. We support the growers and they support us."

Rebekah's features beef, pork, lamb, chickens, eggs, turkeys, mushrooms, dairy products, wine and specialty items like buffalo, elk, and rabbit, all raised by local growers.

Some people felt that there would be no way to make such a restaurant concept work in a small town, Wheeler said. "But our business draw is that we offer locally produced organic foods. There are several restaurants in town. Each does a good business. The others tend to cater to traditional tastes, offering small town fare. They appeal to those who like that kind of food. We offer an alternative. People are looking for that difference. Lots of our customers agree that organic food tastes better and is more nutritious."

"We're just a small operation," Wheeler adds. "Just think what could be possible for local growers if it was more than just us." Indeed, one grocery in town sells local eggs, and the nearby Tavern on the Green Restaurant also offers local selections.

In the future, Wheeler hopes, "Some of us will put together a local market where local growers can sell their products. We get lots of people through here who try to get us to start a similar restaurant in other towns, such as Rochester. But running a restaurant is not an easy business."

Earthen Path Organic Farm CSA / Full Circle Cooperative (Oak Center)

Just a few miles away, organic farmer Steve Schwen rises long before dawn one day each week of the growing season to climb into his delivery truck. One of the many pioneers of organic food production in the state, Schwen is the proprietor of Earthen Path Organic Farm, a community supported agriculture (CSA) farm. Still, despite 30 years of growing expertise, Schwen found that he could not build a market for organic produce on his own. So Schwen also coordinates a marketing cooperative, Full Circle Cooperative, that conveys organic produce raised by 14 local growers to Twin City cooperative food stores.

Schwen has literally devoted his life to raising organic produce. Starting at a time when many consumers did not yet appreciate the value of organic crops, he persisted through long, lean years until the market caught up with his vision. Working in close collaboration with others, he helped bring an historic general store back to life at Oak Center. In the ground floor of this venerable building, fresh organic produce and other essentials are sold. In the rustic theatre hall above, Schwen hosts nationally known folk musicians and convenes searching educational sessions that help shape the community's vision for its future.

Full Circle had established a solid reputation as an excellent and reliable supplier long before mainstream consumers began to ask for organic foods. As the urban market expanded, Full Circle's business has also settled into a strong niche. "We sell an average of \$800-\$1,000 of produce each week during the season," Schwen says, adding that his crop season begins in mid-May; he is still delivering root crops in December. He also sells produce at the Lake City and Rochester farmers' markets.

The search for new markets continues, of course. Schwen would like to add to his client list more restaurants and institutional buyers from the Southeast region. He is now setting up a one-step process for placing orders so potential buyers need only make one phone call or e-mail message.

"What has worked best for us is to develop a real strong organic presence, to gain more visibility for the high quality of our foods," Schwen adds. We have been able to show to our buyers that what we have is not just excellent quality produce, but that we're different in how we approach the buyer. We're not just another entity marketing food. We are committed to building a sustainable region."

An essential ingredient of that sustainability, Schwen argues, is that farmers cooperate with each other. "As we brought new farmers into the coop, it has gotten better for all of us. We get more sales, better prices, and we make customers happier." On the other hand, he adds, "When we have pulled back and thought of each other as competitors, marketing entities placed us against each other, and our prices were driven down."

Building connections with food

All three of these initiatives build upon a common thread. Each uses food as a way of building new connections among Southeast Minnesota neighbors. Each offers chances for neighbors to build stronger bonds of loyalty, a more intimate sense of each other, and greater capacity to trust – the kinds of community fabric a scientist might call *social capital*. By planning together to address the needs of their own communities, by gathering together to dine or share stories, and by lingering with each other as business is transacted, participants in each project build a certain amount of new wealth for the community.

Moreover, each connection builds flows of money that link and enrich neighbors. By exchanging goods and services with each other through local networks, residents create new business activity that increases the accountability neighbors have to each other. Money is cycled through many hands in the same locale, building new economic wealth at each turn.

Some 90 such businesses have already formed in southeastern Minnesota. Those we know of are listed in the Resources section of this report [*see page 33*]. While these are relatively small businesses, and while some may be commercially fragile, they hold fundamental importance since they link the region's residents in social and economic networks. Proponents argue that it is precisely such networks that the region requires to cohere. While the mainstream economy vitally depends on such social capital, it is inherently unable to generate it anew. Close community bonds may only be built by people who produce for each other, not by captive consumers of an abstract market. Moreover, in the event of economic recession, cogent social networks will be the core of economic and social recovery.

These local businesses appear to accurately respond to the dilemmas felt by the region's producers and consumers in a rapidly changing farm economy. To gain a more accurate view of these local economic conditions, this report offers an economic snapshot of the region's farm and food

economies, one that draws upon existing data sources.⁴ These data begin to show how money flows through the region as food is both grown and purchased.

Unfortunately, existing data are not sufficient to fully answer the questions raised in this study. Further investment and new community ventures are clearly needed. At the same time, local leaders should press academic and community-based researchers to accurately measure the specific economic and social indicators identified here that would effectively show how both the mainstream economy and the emerging citizens' initiatives work to strengthen and/or weaken the local region.

⁴ All data in this report are for 1997 unless otherwise noted. This year was selected since federal agricultural census data is available for this year, as are Bureau of Economic Analysis, tax and other data. More recent data is available in some cases but is not as complete as for this year. This is also the first year following passage of the Farm Bill of 1996. For a more detailed analysis of how 1997 figures correspond to those of surrounding years, see Appendix E. Note that crop production figures and farm animal populations are measured on January 1, 2000.

The Region's Farm & Food Economies

The southeast Minnesota bluff country hosts a stable farm community built upon lasting social bonds. Long-term families that settled here a century ago have invested difficult years of labor, and their most precious financial resources, to build a solid production system. Conservative by nature, local farmers have also been among the nation's leaders in adopting conservation practices such as contour plowing and reduced tillage.

Rolling hills and terraces encourage farms to stay relatively small, at least in comparison to prairie dwellers to the west. Fragile soil and water systems demand the strongest stewardship from farm families. This is especially true for the karst limestone found under the topsoil, which features long and unpredictable fissures below the surface, meaning that water (and therefore pollutants) may spread rapidly.

A region of farmers

All told, the region produces admirable quantities of food commodities. As of the beginning of 2000, more animals than people live in the region. This totals 1.4 million farm animals, including half a million hogs and pigs, and a similar number of cattle.⁵ Nearly 150 million bushels of corn and soybeans are harvested each year, and another 400,000 tons of green peas and sweet corn are raised for sale to local packers. Over 166 million eggs and 20 million hundredweight of milk are also produced.⁶

Farm animal population (January 1, 2000):⁷

Hogs & pigs:	494,000
All cattle:	466,000
Beef cows:	64,500
Milk cows:	116,000
Laying hens:**	235,000
Sheep & lambs:	12,500

***(includes Dakota and Dodge Counties)*

The region's 8,436 farm families earned a total of \$866 million dollars by selling crops and livestock in 1997. Unfortunately, the cost of raising these crops and animals is \$80 million more than this figure – a total of \$947 million.

⁵ Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000. Although BEA data are not directly drawn from the management records of the region's farmers, they are one of the most frequently used annual summaries of county economic activity.

⁶ Crop production figures from Minnesota Agricultural Statistics 2000 (Minnesota Department of Agriculture).

⁷ Minnesota Agricultural Statistics 2000 (Minnesota Department of Agriculture).

To cover these losses incurred by producing commodities and livestock, farmers must find other sources of farm income such as renting crop acreage, offering services for hire, or reaping investment income. All told, the region's farmers earn a total of \$129 million of such supplemental income, including government support payments of \$42 million.⁸

Taking this supplemental income into account, farmers earn a total of \$48 million in net income. They reap another \$30 million of income from increases in farm inventory. An additional \$48 million is credited to farmers as the value of labor income and other perquisites (such as the value of living in the farm house). This amounts to an aggregate net income for all farm laborers and proprietors of \$122 million.⁹

It is important to note here that government payments amount to only four percent of farm income. This belies the popular stereotype that farmers are "dependent" on government supports.¹⁰ However, these public supports are badly distributed, with 15 percent of the region's larger recipients receiving half of the support payments.¹¹

Net income earned by corporate farms is rather small, at \$3.5 million.¹²

Sales of livestock and related products account for \$555 million of farm marketings, while crop production accounts for \$311 million.¹³ The livestock sales figure includes about \$300 million worth of dairy products.¹⁴

⁸ Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000. These data were taken from 1997 to maintain consistency with other data sources used in this report. This, however, runs the risk of selecting a year that is not typical. When a five-year average of these income and expense items was made, variations were found among the years 1994 to 1998, but all years were reasonably consistent. Using the 1997 findings in this report offers fairly representative numbers (See Appendix E).

⁹ Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

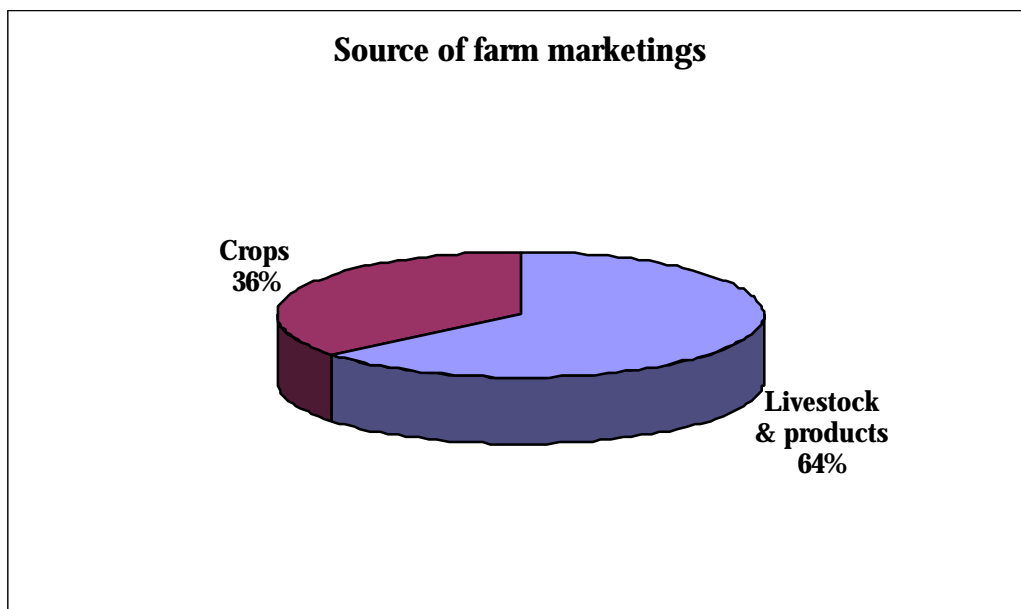
¹⁰ Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

¹¹ USDA summaries of farm support payments for the seven counties for 1997.

¹² Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

¹³ Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

¹⁴ Minnesota Department of Agriculture (2000) *Minnesota Agricultural Statistics 2000*, 85,95.



The table below shows production of the most important crops in the region. This includes an overall total of more than 150 million bushels of grain. Moreover, the seven counties produce enough to feed each man, woman and child living in the region 550 eggs and 1,000 pounds of corn and peas (for processing) per year.

Production of key crops in 1999:¹⁵

Crop:	Production (1999)	Ave. price (1999)	Total value @ ave. price
Corn	117 mln bu.	\$1.70	\$ 199 mln
Soybeans	31 mln bu.	\$4.55	\$ 141 mln
Oats	3.1 mln bu.	\$0.90	\$ 2.8 mln
Barley	0.4 mln bu.	\$1.25	\$ 0.5 mln
Milk	20 mln cwt.	\$13.99	\$ 294 mln
Eggs**	166 mln		\$ 6 mln
Sweet corn	319 mln lb.	?	?
Green peas	52 mln lb.	?	?

** (includes Dakota and Dodge Counties)

Note: "Total value" figures in this table are approximations only and do not agree with "farm marketings" totals above since not all farm products are sold at the average price.

Moreover, these impressive harvests reflect massive gains in production. The region's corn harvests increased threefold between 1949 and 1992. Soybean harvests rose by a factor of six, despite the fact that one of every five acres was taken out of cultivation from 1935 to 1992.¹⁶

¹⁵ Minnesota Department of Agriculture (2000). *Minnesota Agricultural Statistics 2000*.

¹⁶ University of Minnesota Extension County Summaries: Agricultural Profile. Note that harvest comparisons span different years than acreage comparisons.

Changes in crop production from 1949 to 1992¹⁷

Corn	303%
Wheat	-70%
Soybeans	683%
Hay	72%
Oats	-77%
Barley	-81%

Note: This chart measures changes in total yield for the region in bushels or tons (hay).

This farm economy is a powerful economic engine. The region's farmers buy nearly a billion dollars of goods and services each year, spending \$500 million on interest payments, farm chemicals and "other" costs, \$131 million for feed, \$97 million for fertilizer, \$73 million for hired labor, and \$33 million of petroleum products in 1997.¹⁸

Farm production expenses:¹⁹

Feed expenses:	\$131 million
Livestock:	\$58 million
Seed:	\$44 million
Fertilizer:	\$97 million
Petroleum products:	\$33 million
Labor costs:	\$73 million
"Other" expenses**	\$510 million
Total	\$947 million

***includes interest payments and farm chemicals*

Tragically, there is weakness hidden in this apparent strength. As noted above, farmers spend more producing commodities than they earn by selling them. Moreover, prices plunged by one-third since 1997. The region's \$344 million production of corn, soybeans, oats and barley (listed in the table on the previous page) for 1999 would have been worth an additional \$106 million in 1997.

This report focuses not simply on the level of farm expenditures, but also where farm expenditures go. We ask, what is the impact of farm production costs on the region itself? While most of the \$73 million in labor costs, a cost to farm operators, is earned by nearby residents, and cycles some money through the region, this is but a small portion of total farm purchases. Certainly some portion of the feed, seed and livestock expenses is purchased from local producers – but this proportion appears to be diminishing as farmers increasingly rely on inputs from larger and more distant corporations. Contract labor costs, repair and maintenance costs, and property tax payments do cycle a great deal within local communities.

¹⁷ University of Minnesota Extension County Summaries: Agricultural Profile. See note above.

¹⁸ Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000, list a total of \$510 million dollars of unspecified expenses – more than half of all production expenses – in interest payments, farm chemical costs, and "other" costs. USDA Economic Research Service analysts say it is impossible to tally these "other" payments in greater detail, despite their magnitude.

¹⁹ Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

Other production expenses almost certainly leave the region. Most of the \$97 million spent on fertilizer each year, as well as costs of farm chemicals, feed, seed, or livestock produced by distant suppliers, leaves the community. Although some of these inputs may be purchased through a local dealer, only a small percentage of the sale price cycles through the local economy.

Farmers certainly obtain a product or service of value to them for this money, but most of the potential wealth created by such sales accrues to owners outside the region, who are unlikely to reinvest their profits into the community.

In addition, farmers make interest payments to lenders based outside of the region. Very little of this money recycles back into the community, unlike interest paid to local banks. Other expenses farmers pay for farm chemicals, insurance, marketing, land rent, utilities, machinery, or professional services also leave the region.²⁰

Cash rent of course is often paid to neighbors, but may also be paid to absentee owners – who may be former neighbors now living in a southern climate.

Existing data, unfortunately, do not allow this crucial measurement to be made with any precision. Significantly, BEA estimates of production expenses show more than half of these expenses as unspecified "other" costs. Prior national studies indicate that the flow of interest payments away from rural communities by itself constitutes a major drain of financial reserves from farm communities.²¹ If such important indicators continue to be overlooked by federal and state data providers, rural communities will be unable to fully assess whether they gain or lose in their financial transactions – and the outcome is likely to be that rural communities will continue to decline.

To better estimate the scale of these farm production costs, these costs were compared to those found in the Minnesota State Colleges and Universities/Novartis Farm Business Management (FBM) Program data²² for farms in Southeast Minnesota, as well as data from the Agricultural Census of 1997.²³ The FBM sample of 383 farms is not fully representative of the entire farm region, so any such analysis must be treated with extreme caution. This survey of farm production expenses shows that the largest farms are the most likely to purchase large amounts of feed. Smaller farmers are more likely to spend a higher percentage of their costs on interest payments, but larger farms pay more dollars in interest payments due to the size of loans taken out.

Agricultural Census data summarize production expenses based upon a sample of one-fifth of the region's farms. This data is used by the BEA in modeling how money flows through the region. Comparing FBM and Ag Census data, we estimate farm chemical expenses to be \$55 to \$100 million

²⁰ Minnesota State Colleges & Universities in partnership with Novartis Seeds (1999). Minnesota Management Education Program, Farm Business Management Board. Data posted on web site: <<http://www.mgt.org/fbm/reports/1999/se/se.htm>>, viewed November 9, 2000.

²¹ Meter, Ken (1990). *Money with Roots*. Minneapolis: Crossroads Resource Center.

²² Minnesota State Colleges & Universities in partnership with Novartis Seeds (1999). Minnesota Management Education Program, Farm Business Management Board. Data posted on web site: <<http://www.mgt.org/fbm/reports/1999/se/se.htm>>, viewed November 9, 2000.

²³ USDA (1997). U.S. Agricultural Census, posted on web site <<http://govinfo.kerr.orst.edu/ag-stateis.html>>, viewed on February 26, 2001.

annually. Another \$80 to \$100 million appears to be paid as loan interest. Cash rent for land totals \$50 to \$70 million per year.

We tallied these numbers, making estimates of the percent of local trading that results from each expenditure. For instance, of \$1.49 paid for each gallon of gasoline, how much of that is devoted to local costs such as labor, rent to local owners, operating costs which yield income to a local supplier, or local savings? Obviously such estimates are very rough. Working conservatively, we did establish some upper and lower bounds.

We concluded that at least \$330 million and as much as \$570 million flows away from the region each year as farmers pay for production costs. This money, once spent, does little to add further value to the region itself. For this report, it is assumed that the actual figure falls within the middle of this range, about \$400 million per year.²⁴

This figure looks quite stark when compared to the total net income of all farms in the region – including government supports – of \$122 million. To the region as a whole, it is economically senseless to lose three dollars for each dollar earned.

To an individual farm family, continuing to produce on such terms may well be a rational decision. Farmers have credit debts to pay, a commitment to their farm and community, and have invested heavily in technology that allows them to use farm income as a way to cover those debts. Still, what is rational for individual families appears to take a collective toll on the region as a whole.

These imbalances also weaken the condition of farm families relative to others in the seven counties. For example, although farm families earn only 2% of the region's net income, they pay 14% of the region's property taxes.²⁵ This is a total of \$34 million each year, one quarter of the farmers' net income.²⁶ Absentee ownership of farmland is substantial, with more than one-quarter (28%) of farm property taxes paid by non-homesteading owners.²⁷

In sum, as the local farm economy becomes more highly interconnected with larger economic systems, which have the power and reach to extract value from the Southeast Minnesota region, the region has suffered a loss of its own ability to create wealth for local residents.

²⁴ For more details on this figure, see Appendix E, page 62.

²⁵ Minnesota Department of Revenue Sales Tax receipts for 1996, as profiled in University of Minnesota Extension County Summaries: Profile of Business and Labor; University of Minnesota Extension County Summaries: Agricultural Profile; Minnesota Department of Revenue Property Tax data: Estimated Distribution of the Net Tax by Use Class by County Payable in year listed (1974, 1980, 1981, 1997).

²⁶ Minnesota Department of Revenue Property Tax data: Estimated Distribution of the Net Tax by Use Class by County Payable in year listed (1974, 1980, 1981, 1997); and Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

²⁷ Minnesota Department of Revenue Property Tax data: Estimated Distribution of the Net Tax by Use Class by County Payable in year listed (1974, 1980, 1981, 1997). Of course, tax payments made by absentee owners who live outside the region bring a small flow of money into the region's public coffers, but ultimately contribute to a loss of local control over resources.

A region of food consumers

At the same time, of course, Southeast Minnesota is also a region of food consumers. The 120,000 households in the seven-county area earn a total of \$7.6 billion of household income each year. Seven percent of this income is devoted to buying food – a total of \$506 million dollars. Nearly \$300 million of this food is purchased for home consumption, and the rest is spent eating away from home.²⁸

When consumer food purchases are aggregated for the entire region, impressive totals are found. The region's 303,000 consumers spend an estimated \$60 million buying beverages, and another \$47 million for fresh and frozen fruit and vegetables. Consumers purchase another \$34 million of dairy products, and \$32 million of baked goods. An estimated \$23 million of beef is purchased each year, along with \$17 million of pork and an equal amount of cereal grains, as well as \$13 million of poultry products.²⁹

Consumer purchases for home consumption:³⁰

Beverages:	\$ 60 million <i>includes alcoholic and nonalcoholic</i>
Fruits and vegetables:	\$ 47 million
Dairy products:	\$ 34 million <i>for fresh milk alone: \$ 14 million</i>
Bakery items:	\$ 32 million
Beef:	\$ 23 million
Pork:	\$ 17 million
Cereals:	\$ 17 million
Poultry:	\$ 13 million
Other meats:	\$ 11 million
Fats & oils:	\$8 million
Fish and seafood:	\$ 6 million
Eggs:	\$ 2.7 million
Sugars & sweets:	\$13 million

In addition, schools spend \$15 million per year providing school lunches to the region's students (a program that is of course heavily subsidized by the federal government).³¹ Another \$8 million in food stamps is given to aid low-income consumers.³²

However, there is a strong disconnect between this consumer power and the region's producing power. In fact, the amount of locally produced food sold within the region is small and there seems

²⁸ Food Industry Institute (1999). *Food Industry Review*; and Bureau of Labor Statistics (1997). Consumer Expenditure Survey.

²⁹ Food Industry Institute (1999). *Food Industry Review*; and Bureau of Labor Statistics (1997). Consumer Expenditure Survey.

³⁰ Food Industry Institute (1999). *Food Industry Review*; and Bureau of Labor Statistics (1997). Consumer Expenditure Survey.

³¹ Minnesota Department of Children, Families and Learning. "School District Profiles, 1998-1999," available at <<http://cfl.state.mn.us/FIN/profiles/98-99/profiles9899.pdf>>

³² Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

to be no agency or organization measuring the amount. The only figure available is the Agriculture Census count of food sold by farmers directly to consumers, a total of \$2 million for the region.³³ Little of southeast's \$506 million in food purchases helps to build farm income in the region.

The primary economic benefit to the local region from these consumer food expenditures is that some local payments are made for labor, business services, utilities, and other operating costs of distribution. Certainly some profits are also earned by local owners, but the more that food marketing channels are owned by outsiders (e.g., national retail chains), the more profits are extracted from the area. Those consumers who purchase dairy products, meats, cereals, and other foods produced by the region's processors do contribute to a local stream of wealth creation.

No data exist that would accurately portray how much money leaves the region from food purchases. It seems that this figure might easily top \$400 million per year, and could be far higher. Once again, this is an area in which public institutions and universities should take the lead to collect solid data so better analysis can be done.

Data collected should include financial summaries showing what percentage of local producer, supplier or consumer purchases cycle through the local economy. The amount of interest paid by farmers and processors to local and outside lenders would also be a key indicator of financial health. Gauging the extent to which local cash flows cycle through the local economy would be important. Consumers could be surveyed to track the growth of local food purchases. More accurate data showing local consumer patterns would help solidify our grasp of local food systems.

A region of food manufacturers & retailers

Southeast Minnesota is also an important producer of value-added food products. The Bureau of Economic Analysis reports that the region has 48 food manufacturers, earning \$242 million in revenue through manufacturing food and related products. This amounts to 20 percent of all manufacturing income in the region. Well over half of this revenue is earned in Mower County, where the food packers of Austin are located.³⁴ As shown on the table below, manufacturing wages are considerably higher than those for other sectors of the food economy.

Average weekly wage for food-related workers:³⁵

Food Manufacturing	\$637.56
Agricultural Services	\$338.86
Retail food	\$217.35
Eating & Drinking Establishments	\$154.52

For most of these manufacturers, a location close to food producers is essential to doing business. Local processors who manufacture cereal products, meat products, ice cream, cheese, milk, frozen

³³ USDA (1997). U.S. Agricultural Census, posted on web site <<http://govinfo.kerr.orst.edu/ag-stateis.html>>, viewed on February 26, 2001.

³⁴ Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

³⁵ Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

or canned vegetables, and feed for livestock contribute mightily to the local flow of income to area farmers.

Food is also important in the region's stream of retail commerce. In 1997, the region's 210 retail food stores accounted for \$456 million in retail food sales. Another \$218 million in revenue was earned by 616 eating and drinking establishments. All told, more than one-third of the region's retail sales is devoted to these food-related purchases.³⁶ Very few of these sales add value to the production of local farmers, however, since most grocers and restaurants sell food that was raised elsewhere.

Nor are Southeast shoppers currently demanding local produce in large quantities. A recent survey by SNG Associates in Rochester for the Omega Cooperative shows that two thirds of the region's shoppers purchase their groceries in metropolitan areas, where they can take advantage of national brands and larger distribution networks.³⁷

Increasingly, however, there are signs that local consumers would prefer having the local option available. SNG also found that three of every four shoppers have bought food at a natural foods store, and liked the higher quality and freshness they could obtain through these purchases. Consumers added they were only "somewhat" satisfied with the availability of local produce. An even larger number, 90 percent, thought that opening cooperative food stores would be a good idea.³⁸

Further, a survey performed by Community Design Center earlier this year shows that there is a potential market for local foods. Institutional food buyers report they certainly buy foods that are produced in the region, but do not purchase from local producers. Most say they would buy locally if price, quality and ordering were competitive.³⁹

Summary

The Southeast region grows food well and most residents eat fairly plentifully, but the region exports a great deal of its money in the process. Raising its farm products, the region loses about \$400 million per year. In buying food, the region leaks perhaps another \$400 million. This amounts to a total (conservatively estimated) of approximately \$800 million that leaves the region. This money – though currently earned by the region's producers and consumers – fails to build wealth for people who live in the community.

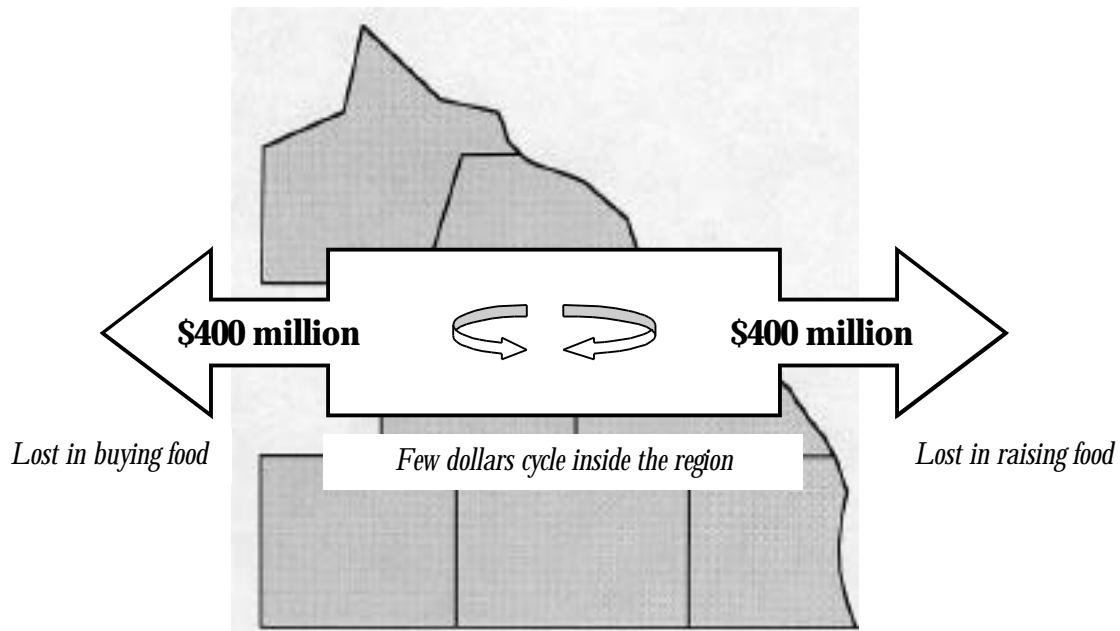
³⁶ Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

³⁷ SNG Associates (2000). *Southeastern Minnesota Sustainable Agriculture Consumer Survey*. Rochester, October 28. The region as defined for this report included an eighth county, Dakota, that is more suburban in nature.

³⁸ SNG Associates (2000). *Southeastern Minnesota Sustainable Agriculture Consumer Survey*. Rochester, October 28. The region as defined for this report included an eighth county, Dakota, that is more suburban in nature.

³⁹ Bilek, Petr (2000). *Institutional Food Market Survey*. Lanesboro: Community Design Center, Hiawatha'a Pantry Project, February 1.

\$800 million erodes from the region each year



Thus, the region's **farmers** could reduce their losses by growing **fewer** commodities for the agribusiness economy, and **consumers** could reduce their losses by purchasing **more** food directly from producers. The flows of money created – internal to the region – would likely be smaller than those now found in the mainstream farm and food economy. Still, each dollar would do more to create wealth for the region's residents.

This data further suggests there are potentially hundreds of millions of dollars in opportunities for local value-added food production and processing. If value were added locally for local consumers, a considerable amount of money could potentially be cycled through these seven counties. Local businesses could find new markets in adding value to local produce.

Yet this would not be dramatic change. Even if all of the region's residents purchased all of their foods from local suppliers, which is highly unlikely, this would only directly increase personal income in the region by a maximum of 6 percent, the percent of household income devoted to food purchases. Still, the value of these purchases would multiply as this money cycled through other local businesses.

Economists at the University of Wisconsin–River Falls have found that substantially more money cycles through local economies when farms are small. Professor Larry Swain, director of the Rural Development Institute's Survey Research Center there, found that each dollar earned by small farms in Minnesota and Wisconsin cycles 2.3 times through the local economy, compared to 1.9 times for larger farms and only 1.6 for the average rural consumer.⁴⁰

⁴⁰ Interview with economics professor Larry Swain, community development specialist for the University of Wisconsin Extension Service and director of the Survey Research Center at UW-River Falls, February 12, 2001. See Swain L.B.

Moreover, more local purchases means harm would be reduced. While difficult to quantify, it is clear that as losses are reduced, new wealth and new personal connections would be built among the region's residents, as more local farmers and consumers exchanged goods and services and added value to food commodities. This is borne out by the experience of Sunflower Fields Farm CSA (see page 23).

(1999). "A Study of the Economic Contribution of Small Farms to Communities – Completed 1996 to 1999." Unpublished manuscript; and Swain, L. B., & Kabes, D. (1998). "1996 Community Supported Agriculture Report." Unpublished manuscript.

Ecological impacts of current farm practices

Tragically, erosion is also the ecological outcome of current agricultural practices. The soils lying over the region's limestone karst geology are very loose, providing an excellent medium for growing food. However, this same quality also makes the soils highly vulnerable to erosion. With each rainfall, tons of soil are washed into surface waterways.⁴¹ Bacteria, fertilizers, and farm chemicals often cling to the soil, polluting both rivers and lakes. Further, the underlying karst formations have long fissures that extend underground. As contaminated water enters these cracks in the limestone, pollutants can rapidly migrate into distant wells or bodies of water. The movement of these contaminants is accelerated by the steep slopes of many of the farm fields.⁴² As a result, the Root River is one of the most sedimented rivers in the state of Minnesota.⁴³

The Pollution Control Agency also lists the southeast region as the part of the state most affected by nitrate contamination.⁴⁴ These nitrates come from residential septic systems as well as agriculture, but one official estimates that 75% of the nitrates found in the region's groundwater come from agricultural sources.⁴⁵ Most at risk from nitrate contamination are young children and pregnant women.⁴⁶

Nitrates have also contaminated residential and municipal wells in the region. The town of Lewiston was forced to spend \$1 million to dig a deeper well due to nitrate contamination. The town of Mabel also had to dig a new well for the same reason.⁴⁷ The Department of Agriculture estimates that 15 to 20% of the wells it has tested in the southeastern part of the state in a voluntary testing program have nitrate levels that exceed state health standards.⁴⁸ In fact, six counties exceed 20%, as shown on the map, Appendix F, on page 63.

Similarly, the USDA identifies the region as one having high potential for pesticide runoff.⁴⁹

Recent economic changes may make this situation worse. As the milk price has fallen in recent years, and as dairy farmers have aged, many farmers have sold their dairy herds. One DNR official points out that while the number of dairy cows in the region remained about the same from 1990 to 1999, the number of farms fell by 60%. As fewer farms raise pasture crops for dairy animals, farmers tend to shift to cultivating row crops. With fewer green or cover crops and less crop

⁴¹ Interview with Louise Hotka, surface water specialist, Pollution Control Agency, St. Paul, January 11, 2001.

⁴² Interview with Louise Hotka, surface water specialist, Pollution Control Agency, St. Paul, January 11, 2001.

⁴³ Interview with Louise Hotka, surface water specialist, Pollution Control Agency, St. Paul, January 11, 2001.

⁴⁴ A map can be found on the PCA web site: <<http://www.pca.state.mn.us/water/groundwater/gwmap/nitrate.pdf>>. Viewed January 8, 2001.

⁴⁵ Interview with Jeff Green, regional groundwater hydrologist, Pollution Control Agency, Rochester, January 12, 2001.

⁴⁶ Interview with Jennifer Maloney, groundwater specialist, Pollution Control Agency, St. Paul, January 10, 2001.

⁴⁷ Interview with Bea Hoffmann, Zumbro/Root River Joint Powers Board, Winona, January 10, 2001.

⁴⁸ Interview with Bruce Montgomery, well-water specialist, Minnesota Department of Agriculture, January 12, 2001.

⁴⁹ USDA Natural Resources Inventory, 1982 <http://www.ers.usda.gov/briefing/AREI/newarei/AREI_300impacts.pdf>, p. 32, viewed in October, 2000.

rotation, soils are no longer strengthened. Soil structure is weakened. Many farmers plant soybeans on fields that had once nourished forage crops, further raising the risks of soil erosion. This is likely to be made worse by recent rises in oil and natural gas prices, which raise the costs of fertilizing – thereby encouraging even more growers to raise soybeans, which fix nitrogen to the soil.⁵⁰

Ecological concern motivates the growth of local food systems

Concern for the ecosystem led two groups of Iowa farmers just across the state border to restructure their farms to address the needs of an important local produce market – their immediate rural neighbors.

The farmers who raise food for Sunflower Fields Farm CSA and for the cooperative GROWN Locally [*see next page*] took action to protect their region's biodiversity. In addressing that concern, these farmers learned they could help build important connections among their neighbors.

⁵⁰ Interview with Larry Gates, Department of Natural Resources, Rochester, January 12, 2001.

Sunflower Fields Farm CSA & GROWN Locally (Allamakee County, Iowa)

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Raising food for rural neighbors

Michael Nash likes to tell a story about the time Tom Miller, the extension agent in Dubuque, Iowa, stopped a group of local farmers cold by placing a challenge in front of them. "Suppose," Miller responded to one group's complaints about withering markets, "I could put you in touch with a market of 75,000 people who can use what you grow three times a day. They are within 20 minutes of your farms. They spend millions of dollars each year, and pay their bills regularly. Would you like that market?"

The room filled with an awkward and bemused silence as the gathered farmers cautiously considered his question. Finally, one spoke up. "Of course we would, but can you show us where this market is?" Miller quickly responded, "I'm talking about the city of Dubuque. That market is right here in front of you. All you have to do is raise food for it."

Miller's lesson was not lost on Michael and Linda Nash, a Northeastern Iowa farm couple. The Nashes moved to Allamakee County in 1996. Settling into Sunflower Fields Family Farm, they began to raise organic produce. But the Nashes took Miller's challenge one step further: they raise food for their rural neighbors, and want to focus as much as they can on providing food for the folks who live within about 40 miles of their farm. Their neighbors are eagerly signing up.

Sunflower Fields Farm CSA

Over time, as demand grew, Sunflower Fields recruited neighboring farmers to join them in their mission, creating a multi-producer CSA in a rural region. "We still consider ourselves a CSA, but no longer call it Community Supported Agriculture. What is that?" Michael Nash asked. "We are not farmers in need of support. We prefer to call ourselves a Community-Sustaining Agriculture farm.

We don't grow vegetables as much as we grow our soil. We develop relationships with our neighbors that we might call a market, but which are actually close personal bonds."

As more of their neighbors joined Sunflower Fields Farm, the Nashes began to hear from larger institutions that were also interested in buying fresh organic produce. So the couple invited their neighboring farmers to join them in forming a new cooperative, GROWN Locally, which sells locally raised food to larger clients like nursing homes, schools, and restaurants. The two businesses overlap a great deal, often with the same farms producing food for both outlets. But each serves a distinct purpose.

The idea of raising food for rural dwellers would have appeared preposterous two decades ago. Even in recent years sympathetic people told Nash he would never find a market among his rural neighbors. "When we started, we checked with other CSA farmers, and they were very helpful," Nash said. "They warned us to be careful. They said, there might not be enough people in rural Iowa to make this work. There is not enough money there. And in any case, every family has its own garden. We've found that none of those concerns really became an issue."

Why would families living on farms want to buy food? The answer, of course, is that few farm families actually raise food directly for people to eat. Rather, the large-field crop production practiced with high technical efficiency by Nash's neighbors primarily produces raw materials for industrial processing. Vegetable gardens that once dotted the landscape often go untended in a world of dual-income households. Few local stores carry locally grown produce. So, farm families find themselves in an ironic situation: importing food to eat that they once grew for themselves.

When Michael and Linda Nash created Sunflower Fields Farm as a CSA they set out to meet the needs of their closest neighbors for food. After informally polling their neighbors to see if there was a market for local produce, the Nashes began to recruit members. In merely three years, their membership has grown larger than intended, even though, as Michael Nash says, "We're not even scraping the surface in getting our own community involved." As more neighbors joined, the couple invited other producers to sell shares of crops the Nashes did not grow, and Sunflower Fields grew into a multi-producer CSA. Now the Nashes hope to assist others to set up similar CSAs in nearby counties.

Sunflower Fields Farm started with 22 members in 1997. "We wanted to be there for anyone in our neighborhood who wanted that experience. Right at the beginning we decided that once we started we needed to give anyone who asked a chance to try buying from us. We couldn't simply say no, because if we did we ran the risk of turning them away from the concept forever," Nash explained. "We believe access to fresh healthy food is a necessity, not simply a consumer choice." Still, the farmers were uncertain they could meet the needs of more than 135 customers at a time. "Now we think that if we can hold to 160 families, and retain at least 80% of those accounts each year, we can make this work."

Nash says the farm has used nothing more than word-of-mouth advertising to attract members, who pay from \$150 to \$250 for their annual food shares. "This is the first year we got lots of calls from people we didn't know. They are friends of friends of friends." With a population of 15,000 in the county, the Nashes are convinced that growth will continue for quite a while, spawning other grower clusters in the nearby counties such as Fayette, Winneshiek, Chickasaw, Bremer, and Clayton. "We think we offer prices that are competitive, and believe our quality is far superior."

Sunflower Fields offers a wide variety of crops and products, including more than 50 kinds of vegetables and herbs, eggs, apples, turkey and chickens, flowers, soap, honey, and home-baked bread, cookies and pies. Next year they plan to offer specialty boxes containing all the ingredients needed to make salsa, pickles or soup. They will also provide Thanksgiving boxes and ornamental flowers.

Not that this is a quick road to prosperity: raising vegetables is labor-intensive work, and the Sunflower Fields Farm truck makes regular weekly rounds to its shareholders delivering their produce shares, which further adds to the cost. Yet Nash feels that having control of the distribution gives their neighbors far more command over their food supply.

The farmers in Sunflower Fields Farm CSA are convinced that this is an important investment in the community where they live. Nash said, "We do what we call *relational marketing*. We have to know our customers if we are going to make this sustainable. We visit each home once a week. We go door-to-door supplying our neighbors with fresh produce, and showing them how to prepare the foods we grow."

Focusing on raising food for their immediate neighbors makes sense to Nash because it strengthens the locale where he lives. "Having healthy fresh food is a necessity. That's especially true if you've got kids. You have to have great food." Local production, he adds, "will benefit us and everyone here. As farmers, we are learning how to work together, and not to feel so competitive with each other. We all have to go beyond the short-term payoff. That narrow mindset does not get you beyond yourself, and into trying new things."

But Nash says there is even a more central mission to Sunflower Fields CSA. "The key is to improve the health of the farm, to improve the soil, and to improve the crops. In the process, we like to make a little money. But our long-term survival depends on building diversity. The soil is dead on a lot of the larger farms. With chemical applications it is a lot like being a drug addict. You have to go through a long, uncertain recovery."

Nash speaks from seasoned experience as a conventional farmer in the '60s and '70s. "One day I spilled some of the chemical I was applying to the field. For years, nothing grew on that spot. I had always believed the chemicals were safe, but now I knew different. I wondered what else was being killed by my chemical applications? What was getting into the water we drink?"

GROWN Locally

As they gained experience in the first seasons, the Nashes quickly learned that Sunflower Fields Farm could be strengthened if they set up a separate but related organization. Recognizing that local nursing homes, schools, restaurants and other institutions also buy food for daily meals, Michael asked a group of farmers who visited his farm for a Northeast Organics field day in May, 1999, if they were ready to take on this new challenge. Those farmers met a few weeks later and created a new farmers' cooperative to serve those institutional customers.

That coop is called GROWN Locally (GROWN stands for Goods Raised Only With Nature). Many of the same farm families raise food for both businesses, but each business serves a distinct niche. While the members of Sunflower Fields Farm purchase annual shares, and receive weekly shipments of whatever comes in during a given week. GROWN Locally caters to larger buyers who want steady supplies of specific products they are willing to buy at a certain price. Sunflower Fields Farm, a CSA, invites substantial involvement by individual residents, while GROWN Locally is a producer's cooperative.

GROWN Locally leveraged the connections Sunflower Fields Farm had already built in the community, creating new opportunities for more people to gain access to more healthy foods. Linda Nash suggested that the nursing home where she works begin to buy fresh produce to cook for their residents. Although the nursing home's supply contracts limit their ability to purchase independently, company officials took keen interest. They began by ordering items like peas and green beans that were not only popular eating for the home's residents, but also a source of useful work. Some residents enjoy volunteering to cut the tips off the legumes, preparing them for the cooks, as a recreational activity.

In 2001, GROWN Locally will sell to 15 area nursing homes, and one school district. They also see the potential to supply food for special events and reunions, and hope to set up a small processing plant so they can supply canned and frozen vegetables.

The farmers coop currently uses about 17-20 acres of land, scattered among the producers' farms, to raise vegetables. Each member earns perhaps \$500 to \$1,000 in a year, and has the capacity to market more. This is clearly not the sole source of income for any of the coop's producers; all have a second source. They expect to take "baby steps" in growing the size of the cooperative, aiming to plant 20 to 30 acres in five more years.

Care for health also motivated the organic farmers who formed GROWN Locally. Nash recalls, "A group of us got talking one day about our farming. We all agreed we were going too far away for our markets. This took a toll on us financially, it took a toll in energy costs, and it was harmful to the soil we depended upon. But we hadn't yet figured out a viable way to localize our markets, and to diversify our crop production. I had the idea that we should invest in creating an institution that would build a local market. We wanted to offer good produce at a reasonable price. As we spoke, we realized we would have to deliver the food right to those institutions, so the buyer doesn't have to chase all around looking for the food they want. And we had to do it reliably. We couldn't just be a fly-by-night operation."

Judy Egeland, another coop founder, said they all realized the potential was enormous. By cooperating as growers, everyone could benefit. More products could be offered to consumers if more farms were involved. Farmers could produce crops they enjoyed producing, and could take advantage of their existing investment in machinery and their unique talents. There would be additional protection for farmers and consumers in the event of a hailstorm or other calamity that might hit one farm. "If we work together our markets will thrive. If we fall apart, it cannot work."

So the farmers began by sitting down and deciding what each family wanted to produce – and also listed what each family had no interest in raising. Each farm does what they can do best, and by attracting new growers with complementary interests, a variety of foods can be produced.

Consistency has been key to filling institutional orders. Every Sunday during the season, each grower sends a report to Linda Nash, the delivery coordinator, stating what crops they expect to be able to harvest that week. The buyers fax their orders to Linda by Tuesday evening. A few hours later, Linda sends an e-mail to all the growers telling them what the week's orders will be and suggesting which farms meet which orders. Each farm then sends Linda an e-mail message detailing the delivery they will make later that week. On Thursday morning, the growers converge at the Nash farm, where shipments are collected and distributed into boxes for delivery to each customer. Delivery routes are designed so each customer receives weekly shipments with minimum driving expense. With assistance from the USDA's SARE (Sustainable Agriculture Research and Education) grant, Nash is now setting up a web site so buyers can place orders directly by internet, reducing the time and expense.

"This is a magic group to work with," Nash adds. "We just sit down and discuss our needs, and get it done. We're actually extremely concerned about how to work new growers in, since the group we have works so well." Still, he underscores his belief that "These are just regular folks doing something that makes sense. There is nothing unusual about this group of people."

One of the challenges faced by both Sunflower Fields Farm and GROWN Locally is to educate people to eat differently. "This is seasonal eating," Nash points out. Shareholders end up eating crops as they come in, rather than being able to buy whatever they desire no matter how distant the source. Institutional buyers may also save money by ordering in harmony with seasonal harvests.

"There is a ton of education to be done," Nash adds. "We have some exceptional crops of kale and elegant, buttery kohlrabi. Sometimes our neighbors need suggestions for how to prepare them." Recipes and serving suggestions often accompany food shipments. "Rural customers are more likely to cook at home than urban folk."

Nash says he sees a solid potential for growing a large number of such local initiatives. "These are totally undeveloped markets for local growers." Still, he cautions, there are many ways things could go wrong. "I am uncertain how long the CSA can sustain its customer base if "buying locally" is just a trendy thing. Will people continue to want local foods?" He is also clear that he does not want to become a broker, making a living merely by selling food. It is important to him to stay involved in the coop as a grower.

Nor does Nash want to get bigger geographically. "Is the goal to create a bunch more CSAs? Or is it to give those who are looking for it an alternative way to eat? I don't think we should expect to find a bunch of CSAs scattered down the highway. Having 25 in one county is not going to cut it, because we would all be competing for the same folks. Not all of us could make a living." By cooperating through channels like GROWN Locally, Nash feels growers can supply larger markets. "We may have two or three CSAs in any given county, each one with lots of farmers involved, growing a wide range of crops or producing value-added products. Then we can work together to be as efficient as possible, rather than going after each other." Still, he cautions, this may not always mean that farmers will be working full-time.

Judy Egeland said that things could become more complex as people come to depend more on the coop as an important source of income. It is relatively easy to avoid conflict now, because the amount of money earned is relatively low. Further, as the coop grows it will be important to keep expectations in check. "If everyone expects too much, and depends on this for their source of

salvation, we'll be in trouble," she adds. To limit that risk, Nash says the group has decided to build slowly, making sure all growers are included in all decisions. To Nash, the experience of collaborating with neighboring farmers to build more self-reliance has offered rich rewards.

Coop members have to remind themselves this is not about finding or imposing a single answer. "It doesn't matter what outside idea you bring in, if you put your dependency on it, it is not going to work. Not being able to see beyond a single model is dangerous. I don't have a starting point or an end point. We had to adapt our model to suit the locale where we live. Anyone trying this elsewhere would have to reinvent this approach to suit themselves."

Raising food organically rather than in a conventional approach has been a great lesson in working in cyclical manner, rather than taking a more linear path. "We grow in cycles, buy in cycles, and eat in cycles," Nash said.

Nash adds that in the beginning he thought the most effective CSAs had been organized by consumers who decided what they needed and then found growers to fill those needs, rather than by growers who tried to educate consumers. But he has learned that "rural CSAs are a real different breed" than the urban kind. You have different expectations, different markets, different delivery systems." As he gained experience, he has realized that farmer-designed CSAs are also filling their niche quite successfully.

The Nashes are committed not only to making Sunflower Fields Farm work, but to it serving as a model for others to follow.

Conclusion: Food & Community Building

Farmers in Southeastern Minnesota have long known they hold a competitive advantage over other regions of the world when it comes to producing livestock, feed grains and specialty crops like apples. However, the findings of this research question whether exercising this "competitive advantage" is worth it. By doing so, under current practices, the region's farmers are weakening their local economy, and threatening public soil and water resources.

Moreover, if farmers and consumers fail to devise a more locally-based food system, then the outcome is likely to be further erosion of the capacity of the region to build wealth, and further harm to soil and water resources. As the region exports even more money, soil, youth and ownership, the possibilities of building a more self-determined life would become even more distant.

More money cycling through the region for food would mean more local youth could remain in their home region and make a decent living. More local power over local food production is likely to mean higher quality food, more accountability to the true needs of consumers, and stronger local credit sources.

When the farmers of Allamakee County, Iowa, organized a CSA and a producers' coop, their main motivation was not economic. Rather, the farm families who launched this experiment face years of strenuous work in building new local food systems, in addition to the work each performs to make a living, for financial returns that are quite austere.

What return do the farmers of Northeastern Iowa obtain for this investment? From the fire in Michael Nash's eyes as he speaks of Sunflower Fields Farm and GROWN Locally, it is clear he receives some spiritual nourishment from his labors. Nash and his neighbors began by taking a stand to promote ecological diversity in the locale where they live. Yet other rewards have been just as potent to the farmers: getting to know their neighbors better, gaining power together by launching successful plans, learning from each other how to cook healthier food, and learning the week's news by delivering produce. Nash also clearly takes pride in his sense that the path he is on does less ecological damage than the way he used to farm.

The "baby steps" taken by Sunflower Fields Farm and GROWN Locally are discrete investments in a more solid future for their locale. Although they earn small amounts of money now, they are building the foundation for money to cycle through their community – to build local food systems that promote healthier living, more nutritious eating, more rewarding farming, and more coherent communities.

Like Paula Wheeler and Diane Lutzke of Rebekah's Restaurant in Plainview, the farmers in Sunflower Fields Farm take pride in getting to know their neighbors as they trade services with them. They feel satisfied to fill the needs their neighbors have for healthy food. Each effort welcomes young people into economic structures that allow them to imagine earning a livelihood in

their home town, and that assure them their labor and contribution is important to building community.

Like Steve Schwen of Oak Center, the Nashes inspire neighboring farmers to cooperate with each other. By taking concrete action to promote biodiversity without waiting for someone else to do it for them, these farmers gain great confidence. They learn to appreciate each other's strengths and weaknesses by mounting an effective business. These farmers teach each other about organic production techniques as they learn new lessons. Inspired by taking a long-term view, these clusters of farmers are weaning themselves from the dependencies they felt the mainstream farm economy pressured them to adopt.

Like the founding members of Root River Market in Houston, the Sunflower Fields Farm growers have decided that food is meant to nourish and nurture community, not just serve as an inert commodity. Their pioneering activities suggest that a rural way of life that treasures close community bonds can in fact be built in our contemporary era, using sophisticated technology as a tool, as long as people are placed first.

Since there are 120,000 households in the seven-county area covered in this study, it would take about 600 CSAs the size of Sunflower Fields Farm CSA (roughly 200 members each) to assure that every household had access to fresh farm products through a CSA. While this of course is an extreme case, making a quick calculation using this estimate allows us to consider the upper limit of local food production.

By dividing the regional consumer market for various food items [see page 16] by this number of CSAs (600), an estimate of potential food sales may be made. For example, the \$47 million now spent by the region's residents buying fresh or frozen fruit and vegetables amounts to a produce market of \$78,000 for each CSA with 200 members. By selling meat and poultry directly, local CSAs could strive toward an additional \$64 million market, or \$107,000 for each group of 200 households. The \$60 million beverage market could be divided into \$100,000 per CSA.

As these farms diversified into eggs, flowers, baked goods, and other value-added products required by their neighbors, each CSA could tap a potential market of half a million (\$500,000) dollars – the amount each cluster of 200 families spends to bring food home each year.

If in each locale a producers' coop such as GROWN Locally were also to flourish, local farmers could also sell to local restaurants, grocery stores, schools, nursing homes, and other institutional customers. Locally owned food processors could add another large share of local wealth creation, if owned by local stockholders, and if committed to purchasing from local suppliers and laborers.

Potential local markets:

Individuals & Families	Local Institutions	Retail outlets	Wholesale outlets
Purchase food shares Farm pickup Home delivery	Nursing homes Schools Colleges Employer food services	Farmers markets Grocery stores Direct marketing	Restaurants Processors Produce brokers

If each producers' coop or multi-producer CSA attracted 20 farms to produce for them, this would mean that a total of 12,000 farms could earn part of their livelihood by raising food for local sale. This, of course, is 3,500 more farms than the region currently supports. Not all of these farms would be making their entire livelihood by raising fresh foods, of course. Some would continue to earn part of their living by raising commodities, and some would continue to hold off-farm jobs.

As neighbors clustered together to shape local food systems that bring money into the locale and recycle it through several local businesses, they would build new wealth for the region – and simultaneously plug some of the \$800 million in leaks that were analyzed above. Farmers and consumers would benefit, but so would rural businesses. Farm input suppliers would be able to sell to more farmers. Intermediate processors could add value to locally produced farm commodities. Distributors would find new markets.

This in turn would improve the region's social and economic stability in the event of heightened economic competition, or financial turmoil, from either national or global quarters.

Even a small increase in local food production could produce interesting changes. If only five percent of food consumed in the region's homes were bought directly from local growers, this would create a stream of \$15 million of farm income. If multiplied by a factor of 2.6 as indicated in the University of Wisconsin study, this would mean a total of \$39 million dollars cycling through the local economy – an amount which rivals all the farm subsidy payments currently collected by the region's farmers.

Creating such local food systems will not happen magically. Imbalanced market forces, as they currently exist, work entirely in the opposite direction, extracting wealth from rural communities, both in the Midwest and across the globe. Public intervention in partnership with private investors will be required. Such work will take long-term dedication to building sustainable locales, deep patience to ride through difficulties that will arise, and a committed vision of building capacity in local communities.

The goal of building local food systems is not to construct a wall around the region, or to isolate Southeast Minnesota from the rest of the world. All the initiatives described above buy from global markets, and all compete with global producers. All draw upon lessons learned in other locales.

What sets these initiatives apart is that they show that building a stronger region is within the grasp of local people, given the money already earned by local farmers and consumers. Economic development may not require new income as much as reducing current losses. Sustainable agricultural practices, for example, may require fewer inputs, so less money need be lost.

Each of the initiatives described above helps build new connections among local residents, which is an important form of community wealth. Each builds new opportunities for investment, commitment, and savings. In doing so, each takes steps to reverse the extraction of wealth by corporate and outside interests. Each shows that the erosion of soil and financial resources may be stopped at home.

The test of new initiatives to construct a locally owned food system is not whether each consumer buys all food from local producers. Rather, the test is whether economic structures may be built to assure that raising food for a local market once again becomes economically viable, and whether

those structures build wealth for local communities. Local food production should be a healthy option, not a rigid requirement.

The region's consumers may also wish to purchase, for example, organic produce from Chile, or healthy pork from Iowa. The question they should ask themselves, if they do, include the following: Who benefits from such purchases? Where is wealth created? If the southeast region benefits, how much is gained, and who gets it? If outside interests benefit, then by how much and who gains? How much savings and investment are built by local residents, and how much by corporate owners? How much can this region afford to support wealth creation in other areas without undermining its own way of life? Is it better to purchase beverages bottled at a local factory owned by outsiders or from a health-conscious unionized factory in California? At what point do the region's soil and water resources begin to suffer? Some interesting choices lie ahead.

Food is central to the strength of the region because, as our sources have pointed out, everyone needs healthy food and everyone eats every day. The traditions communities build around food are among the most powerful bonds people make with each local culture – in many cases enduring long past the time a local dialect may cease to be used.

Rural families in places like Allamakee County, Plainview, Houston and Oak Center hold much of the expertise that will be required to answer such questions.

Resource Lists

1. Southeast Minnesota Food Producers, Sellers & Processors

Note to readers: Although we have made exhaustive efforts to include as many resource groups as possible, we cannot guarantee that the following lists are complete. If you are aware of some group or business that has been omitted, please contact Community Design Center at <foodnet@means.net> or (507) 467-3446.

2. Farmers Markets in the Region

Cannon Falls
Lake City
Rochester (downtown at Miracle Mile)
Rushford
Winona

3. Cooperative Wholesalers

Full Circle Cooperative

Oak Center
RR1 Box 52BB
Lake City, MN 55041
(507) 753-2080

organic produce delivered to Twin City coops, and sold at local farmers markets

4. Community-Supported Agriculture (CSA) Farms:

Earthen Path Organic Farm

Oak Center
RR1 Box 52BB
Lake City, MN 55041
(507) 753-2080

organic produce shares sold to families who join the CSA.

Featherstone Fruits & Vegetables

Ed and Jack Hedin, Jenni McHugh
RR 1, Box 121B
Rushford, MN 55971
(507) 454-0305
(507) 482-4244
www.featherstonefarm.com

Featherstone farm and CSA raises organic vegetables and fruits for sale at farmer's markets and wholesale in nearby cities. Their goals are to provide tasty produce, build soil and to serve the local community and consumers. Delivers to drop sites in Winona and Rochester.

Big Woods Farm

Laurie & David Hougen-Eitzman
10752 Nerstrand Blvd.
Nerstrand, MN 55053
(507) 334-3335
e-mail: hougeneitzman@ll.net

This CSA serves Rice County and the Twin Cities. Members are encouraged to help with planting and harvesting in the spring and summer.

5. Producers who sell directly to consumers:

Located in the southeast Minnesota region

Anderson Family Farm

Cannon Falls
(507) 263-2109
ljander@rconnect.com

pork & beef

Appleberry Farm

Fountain
(507) 867-4846

Pick-your-own strawberries & raspberries

Appleberry Farm

Rochester
(507) 867-4846

apples, grapes, currants, blackberries,
gooseberries, strawberries, raspberries,
potatoes & cut flowers

Apple Ridge Orchard

Mazeppa
(507) 843-3033
www.appleridgeorchard.com

apples & pumpkins

Alexis Bailly Vineyard

Hastings
(651) 437-1413
abv@abvwines.com
www.abvwines.com

Wines

Bauer's Market & Nursery

LaCrescent
(507) 895-4583

bedding plants, sweet corn, apples,
strawberries & raspberries

Big Woods Bison

Nerstrand
(507) 789-5880
bigwoods Bison@hotmail.com

bison

Big Woods Farm

Laurie & David Hougen-Eitzman
10752 Nerstrand Blvd.
Nerstrand, MN 55053
(507) 334-3335
e-mail: hougeneitzman@ll.net

This CSA serves Rice County and the Twin
Cities. Members are encouraged to help with
planting and harvesting in the spring and
summer.

Bridgeview Farms

Zumbrota
(507) 732-5076
tmack@rconnect.com

squash, pumpkins, beef

Buckridge Meats

RR 1 Box 37C
Millville, MN 55957
(507) 753-2183

Buffalo Gal

Houston
(507) 896-2345
buffgal@means.net

bison

Buffalo Hills Bison

Caledonia
(507) 724-5166
buffhill@means.net

bison

Burr Oak Buffalo Ranch

Racine
(507) 378-5413
burroak@hmtel.com

buffalo

Bushel & Peck

Lake City
(507) 345-4516
(800) 428-7435
4Bushel@MR.net

pick-your-own strawberries, morel
mushrooms, apples, pumpkins

Buster's Country Meats

Spring Valley
(507) 346-2579

meat sales & processing

Busy Bee Honey Farm

Cannon Falls
(507) 263-7952
(507) 271-7079
Honey & Beeswax products

Cedar Grove Orchard

Lansing
(651) 454-4280

apples

Chester Berry Farms

Rochester
(507) 288-0692

fresh fruits and vegetables

Dancing Winds Farm

Mary Doerr
6863 County #12 Blvd.
Kenyon, MN 55946
(507) 789-6606
email: dancingwinds@juno.com

Mary Doerr has been producing artisan
cheeses from goat milk since 1985. She sells
cheese, meat and wool through farmer's
markets and direct marketing.

Dennison Meats

109 Farm Rd
Dennison, MN 55018
(507) 645-8734

meats

Doyle Family Farm

Welch
(651) 388-4871
(888) 811-3217

beef & lamb

Dreamacres

Eva Barr and Todd Juzwiak
RR 1, Box 1243
Wykoff, MN 55990
(507) 352-4255

Vegetables and grains available for direct sale.

Eagle View Family Farm

Dennis and Sue Rabe
Lake City, MN

The Rabe's employ whole farm planning in raising and selling their beef, pork, wild rice, bratwurst and hotdogs and other value-added meat products.

Earth-Be-Glad Farm

Mike, Jennifer and Johanna Rupprecht
R.R. 2 Box 81
Lewiston MN 55952
(507) 523-2564

The Rupprechts raise free-range chickens and cattle for sale at farmer's markets and for direct delivery. They also sell produce and eggs.

Ellison Sheep Farm

Zumbrota
(507) 732-5281
nancye@clear.lakes.com

sheep, wool, wool products

Erdman's County Market

Kasson
(507) 634-2731

smokehouse, meat sales & deli

Farming With Nature

Lewiston
(507) 523-3366
hiddenstreamfarm@hiddenstreamfarm.com

pork

Featherstone Fruits & Vegetables

Ed and Jack Hedin, Jenni McHugh
RR 1, Box 121B
Rushford, MN 55971
(507) 454-0305

Featherstone farm and CSA raises organic vegetables and fruits for sale at farmer's markets and wholesale in nearby cities. Their goals are to provide tasty produce, build soil and to serve the local community and consumers.

Flower Valley Market Sales

Red Wing
(651) 388-6429

apples, raspberries, pumpkins

Flower Valley Orchard

Red Wing
(651) 388-2148

apples

Flying J Angus Farms

Cannon Falls
(651) 258-4452
(888) 258-4452

beef

Frontenac Hills Apple Farm

Red Wing
(651) 267-0891
redapple@win.bright.net
www.win.bright.net/~redapple

Fruit Acres

LaCrescent
(507) 895-4750

apples

Garden Marketplatz Perennial Farms

Rochester
(507) 281-1023

perennials

Gardens of Eden

Artina and Martin Diffley
Eagan, MN

The Diffley's sell organic fruit and vegetable stand located in Eagan, MN.

Gilbert Valley Beefalo Ranch

Neil & Pam Klenke
RR 1, Box 164A
Lake City, MN 55041
(612) 345-5252

The ranch sells beefalo and hamburger.

Green Acres

Gerald and Joan Redig
RR 5, Box 12
Winona, MN 55987
(507) 452-3744

The Green Acres farm raises chemical-free pasture fed beef for order.

Grand Meadow Meat Market

Grand Meadow
(507) 754-5500

meat sales & processing

Great River Vineyard

Lake City
(651) 345-3531
grapes@rconnect.com
www.greatrivervineyard.com

grapes & juice, raspberries

Greg's Meat Processing

Hampton
(507) 263-3373
(800) 657-4973

meat sales & processing

Happy Ours Farm

Rochester
(507) 365-8098
(800) 462-8523

goats & goat milk

Hart Homestead

Kerry, Stephanie, Eliot, Andre and Kolbe
Schauland
RR 1, Box 132
Rushford, MN 55971
(507) 864-2989

The Schaulands raise free-range beef, hogs, goats and chickens. They also sell sausage and eggs.

Hershey Acres

Mel & Arlene Hershey
RR 2, Box 158A
St. Charles, MN 55972
(507) 932-3285

The Hersheys sell beef, chicken, duck, turkey, eggs and vegetables. They also produce and sell bologna.

Hidden Stream Farm

Everett and Rosemary Koenig
Lisa and Eric Klein
RR 1, Box 15
Elgin, MN 55932
(507) 876-2304
(507) 534-3478
email:
hiddenstreamfarm@hiddenstreamfarms.com
web site:
<http://www.hiddenstreamfarms.com>

Hidden Stream Farm produces beef, chicken and pork by rotational grazing for direct sales to consumers and restaurants.

Hill & Vale Farms

Joe & Bonnie Austin
RR 1, Box 152
Wykoff, MN 55990
(507) 352-4441
(800) 484-2462

The Austins raise and sell hormone and antibiotic free beef, chicken and lamb.

Huckstadt Meats

Chatfield
(507) 867-4180
jsr2@prodigy.net

beef, pork, lamb sales & processing

Huettl's Locker & Dressing Plant

Lake City
(651) 345-3424
(888) 761-2296

meat sales & processing, seafood

Kelly's Orchard

6500 Highway 52 North
Rochester, MN 55901
(507) 288-1271

apples

Kenyon Locker

Kenyon
(507) 789-5417

meat sales & processing

Kraut Valley Locker

624 North Pleasant Ave
Spring Valley, MN 55975
(507) 346-7707

meats

Ledebuhr Meat Processing

Winona
(507) 452-7440

organic meat sales & processing

Leidel's Apple Stand

LaCrescent
(507) 895-4832
(507) 895-8221

apples, sweet corn, squash, raspberries, pumkins, tomaotes & honey

Lindstrom Family Farm

Welch
(651) 388-1643
dlindst@presenter.com

beef & pork

The Lively Stock Farm

Dave and Diane Serfling
RR 2, Box 176
Preston, MN 55965
(507) 765-2797

The Serfling's raise and sell antibiotic-free and grass raised pork, lamb, chicken and beef.

Lone Ridge Gardens

Rushford
(507) 864-2593

bedding plants & perennials

Lorentz Meats & Deli

Cannon Falls
(507) 263-3617
(800) 535-6382
www.lorentzmeats.com

fresh meat sales & processing

Loveland Natural Products

Harmony
(507) 937-3445
boblove@lakes.com

organic beef

Michaelis Farm

Roy, Carol, Andy and Justin Michaelis
RR 1, Box 61
Rollingstone, MN 55969
(507) 523-3561

The Michaelis Farm raises and sells drug-free chicken, pork and beef. They also sell eggs from free-range chickens.

Mike's Salad Greens

Mike McGrath
P.O. Box 311
Lanesboro, MN 55949
(507) 467-2416

Mike grows salad greens and caters for special occasions.

Misty Meadows Farm

Pine Island
(507) 356-4350
plwiens@infonet.isl.net

beef, lamb & chickens

Morning Meadows

Lake City
(651) 388-6393

Gouda cheese

Mustang Creek Homestead

Bev, Montana and Mike Sandlin
RR 1, Box 112AA
Rollingstone, MN 55969
(507) 689-4370

The Sandlin's raise and sell fresh eggs and chicken. Farm tours and camping are also available.

Neumann Family Farms

Henry, Alice & Kim Neumann
RR 1, Box 72
Rollingstone, MN 55969
(507) 796-6552

Along with managing their dairy farm, the Neumanns sell eggs and free-range chickens.

Northwoods Orchard & Berry Farm

Oronoco
(507) 280-0591
northwoodsfarm@juno.com

pick-your-own strawberries & apples

Oak Center General Store

RR 1 Box 52BB
Lake City, MN 55041
(507) 753-2080

organic produce – retail sales. See also Full Circle Cooperative (markets to Twin City coops) and Earthen Path Organic Farm (CSA).

Oak Ridge Orchard

Lake City
(651) 345-3968

apples, honey & pumpkins

Ours for a Short Time

Peggy Thomas
RR 1, Box 42
Kellogg, MN 55945
(507) 767-3202

Peggy Thomas raises turkeys and lamb for sale. She also sells hides, wool, rugs and wild rice.

Peine Farms

Cannon Falls
(507) 263-5271
peine@rconnect.com

beef

Pepin Heights Orchard

Lake City
(651) 345-2305

apples, cider & pumpkins

Pete's Meats

Lewiston
(507) 523-2524

meat sales & processing

Pine Tree Apple Orchard

Preston
(507) 765-2408

apples, pumpkins & baked goods

Platte Orchard

Lake City
(651) 345-4064

apples, pumpkins & squash

Preston Apple & Berry Farm

Preston
(507) 765-4486

apples, strawberries, raspberries, bedding plants & baked goods

The Pumpkin Palace / Joe Bambanek Produce

Winona
(507) 454-6910

pumpkins & produce

Rising Moon Farm

Melissa Peteler and Catherine Friend

The farm raises chickens, ducks, guinea fowl, goats and lambs, and now are starting to grow wine grapes. The animals are raised with care and respect and resulting in tasty and healthy benefits.

Releaf, Inc.

Claire Hall
RR 2, Box 108
Wabasha, MN 55981
(612) 565-4380

Claire Hall grows and produces herbal teas, tinctures, massage oil, salve and lip balm in her herbal apothecary and medicine gardens.

Ridge Road Limousin Farm

Fountain
(507) 268-4980

beef

Rising Moon Farm

Zumbrota
(507) 732-7574
risingmoon@juno.com

lamb

Round the Bend Farm

Lynne Farmer
RR 2, Box 67
Rushford, MN 55971
(507) 864-2672
(507) 452-8566

Lynne Farmer raises and sells free-range chickens and eggs.

Sauer's Valley View Farms Tender Cuts

Lewiston
(507) 523-2753
(888) 858-6328
csauer@lakes.com

pork & beef

Sekapp Orchard

Rochester
(507) 282-4544
(888) 973-5277
kkappauf@aol.com
www.mnfarmtours.com

apples & vegetables

Sheep Sorrel Farm

Beth Slocum
31005 County 7 Blvd.
Welch, MN 55089
(612) 823-6112, (651) 258-4290

Beth Slocum specializes in chemical-free grass fed and raised lamb that is processed to order. Her fleece and wool is also sold to make sweaters.

Southwind Orchards

RR 1
Dakota, MN 55925
(507) 643-6255

apples

Sterling Berry Farms

Rochester
(507) 252-1309

red & black raspberries

Still Point Farm

Winona
(507) 457-9511
lpjohn@rconnect.com

cut flowers

Sun Fresh Foods

Preston
(507) 765-2358
www.sendmeminnesota.com

chickens, beef & pork

Surin Farms

Zumbro Falls
(507) 753-2651
surinfarms@aol.com

produce, asian vegetables & herbs

Sweet Meadow Farms

Alice and Walter Field
43104 145th Avenue Way
Zumbrota, MN 55992
(507) 732-7400
1 (800) 584-5351
web site: <http://www.dambgoodlamb.com>

Alice Field raises, processes and sells chemical-free lamb. They also sells lamb sausage and pastries.

Tooker Apples

Cannon Falls
(651) 258-4292

apples, asparagus & raspberries

Traxler Beef

Kenyon
(507) 789-5946
traxlerbeef@email.com
www.cannon.net/~atraxler

beef, lamb, chicken & goose

Triple K Korral

Houston
(507) 896-2182
TKKorral@means.net

buffalo

Wanamingo Locker Services

101 Main St
Wanamingo, MN 55983
(507)824-2279

meats

Ward Angus Farms

Mabel
(507) 493-5028
dward@means.net

beef & lamb

Wescott Orchard & Agri-products

RR 1 Box 13
Elgin, MN 55392
(507) 876-2891

apples & honey

White Water Valley Orchard Pie Shop

St. Charles
(507) 932-4003

apples

Wiebusch's Valley View Family Farm

Lake City
(507) 753-2754

organic beef

Willie's Grocery & Locker

Fountain
(507) 368-4488

meat sales & processing

Zumbro Berries & Cherry Grove Acres

Zumbrota
(507) 732-5186
(651) 923-4679

organic produce

6. Farms in other regions

Farms listed are involved in sustainable or local production and may be good resources for Southeast Minnesota farmers who contemplate direct food sales.

Anderson Farm

Randy & Lynn Anderson
N6501 Manore Lane
Arkansaw, WI 54721
(715) 285-5226

The Andersons provide vegetables and meat products to shareholders. The half-bushel shares come with a newsletter offering nutrition and cooking suggestions.

Angelica's Garden

Angelica Peterson
P.O. Box 403
Hugo, MN 55038
(651) 772-1710

Angelica Peterson's CSA offers value-added products that are FDA certified. Members also receive a cookbook on how to use their share of the produce.

Badger Ridge Garden

Ruth Viste
N2041 430th Street
Maiden Rock, WI 54750
(715) 594-3196
e-mail: rviste@win.bright.net

Ruth serves the Hastings and St. Paul areas.

BC Gardens

20355 408th Ave.
Belgrade, MN 56312
1-888-884-9766; (320) 254-8820
e-mail: bcgardens@juno.com

BC stands for before chemicals which reflects the healthy and environmentally conscious orientation of the gardens. This CSA serves the Twin Cities, St. Cloud and Willmar, several food co-ops, a grocery store, outdoor markets and a Twin Cities restaurant.

Blackberry Hills Farm CSA

Tim Hermann & Karen Shepard
E7339 County Rd. S.
Wheeler, WI 54772
(715) 658-1042

This CSA offers storage shares of flowers, herbs, vegetables, honey, hay, grain, and berries. They also offer apprentice opportunities to learn about organic food production and CSAs.

Common Harvest Farm

Dan Guenther & Margaret Pennings
212 280th St.
Osceola, WI 54020
(715) 294-2831

The intent of this farm is to create healthy soil and to return life to this once idle farmstead. They offer a storage box so that members can have produce into the winter season.

Easy Bean Farm

5075 100th Ave. NW
Milan, MN 56262
(320) 793-6675
e-mail: easybean@info-link.net
web site:
<http://www.prairiefare.com/farmweb/easybean/Easy%20Bean.html>

This CSA serves the local and metro area offering vegetables and fruits. The farm is located on a farmstead that is more than 100 years old. They found their enterprise on a belief in localized food systems and economies.

Earthrise Farm

Annette and Fay Fernholz
Louisberg, MN

This CSA follows the *teikei* Japanese model of land use and food security to grow vegetables and herbs.

Fertile Valley Farm

Vicky Wiegand, Carol Nies, Stephanie May & Terri Golen
N9318 130th St.
Downing, WI 54734
(715) 643-9213 (farm), (715) 772-6958 (voice mail)
e-mail: fertilevalleyfarm@hotmail.com

This CSA is located 60 miles east of the metro area and delivers twice a week. It is committed to sustainable organic farming methods.

Forty Acres & Ewe

Jim Bruns and Donna Goodlaxson
339 10th St.
Prairie Farm, WI 54762
(715) 455-1663
e-mail: 40acres@win.bright.net

Forty Acres & Ewe is a community farm raising sheep and growing organic vegetables. Members select their share from boxes delivered at their neighborhood pick-up point. This CSA accepts food stamps and donates leftover produce to food shelves.

Four Winds Farm

Juliet Tomkins & Prescott Bergh
N8806 – 600th St.
River Falls, WI 54032
(715)-425-6037
email: 4winds@win.bright.net

Family owned and operated since 1988, Four Winds Farm offers organic (not certified) grass-based beef and pork directly to eaters in the Twin Cities and western Wisconsin region.

Foxtail Farm

25316 St. Croix Tr.
Shafer, MN, 55074
(651) 257-9162
e-mail: burkh017@tc.umn.edu

Boxes from this CSA are delivered directly to the home or business of the members.

Garden Farme

Bruce Bacon & Peter Seim
7363 175th Ave. NW
Ramsey, MN 55303
(612) 753-5099
e-mail: bbacon@mtn.org

This land on this farm has been certified organic since 1977. They offer 75 varieties of vegetables, fruits and herbs.

Harvest Moon Community Farm

Ann Rinckenberger
14363 Oren Road North
Scandia, MN 55073
(651) 433-4358
email: hmcf@mailcity.com
web site: www.hmcf.org

The farm offers children's camps and classes that teach the methods and values of an organic farming.

In the Valley Community Farm

Kurt Rentschler
1615 Manning Ave. South
Afton, MN 55001
(651) 436-4795
e-mail: itvfarm@soncom.com
web site: www.itvfarm.com

In addition to produce, this CSA offers eggs and turkeys at the end of the growing season.

Ken's Lean Beef

Tamarack, MN

This is a direct marketing beef operation in northeastern Minnesota, an area largely dismissed for raising cattle.

Lake Country Land School CSA

Leigh Hansen
N13115 30th St.
Glenwood, WI 54013
(715) 265-4608

This CSA is run by the Montessori School of South Minneapolis. Deliveries are made to the school parking lot.

Life Design Organics

Dale and Betty Noordmans
39041 County Road 2
Hancock, MN 56244
(320) 392-5925
web site:
<http://ruralsolutions.com/lifedesignorganics>

This certified organic farm advocates what they call life design – the social, physical, mental and spiritual wholeness of farming. The farm grows and sells grains and valued added products like pancake and bread mixes.

Moonstone Farm

Audrey Arner, Richard Hendeen
9060 40th St. SW
Montevideo, MN 56265
(320) 269-8971
web site:
<http://www.prairiefare.com/farmweb/moonstone/moonstonehp2.htm>

The farm sells chemical-free cattle and sells direct to the consumers. The farm also produces meat products such as hamburgers, jerky, roasts and baloney. The 240 acre farm is home to many plant and animal species.

Morning Has Broken Farm

Route 1, Box 136
Granite Falls, MN 56241
(320) 564-2571
web site:
<http://www.prairiefire.com/farmweb/mhbfarm/MHBFARM.htm>
This 383 acre farm produces chicken, lamb, pork and beef. The farm has been in the family since 1872.

Murphy's Organic Farm

Craig, Joanie and Erin Murphy
Rt. 3, Box 111
Morris, MN 56267
(302) 392-5176
web site:
<http://www.prairiefire.com/farmweb/murphys/murphyhp/htm>
The Murphy farm raises and sells certified organic beef, pork, lamb and poultry. They also grow organic corn, soybeans, sunflowers, wheat, barley and alfalfa on their 470 acre farm.

Natural Harvest CSA

Jennifer Bush and Andrew Gaertner
4634 Linden Trail North
Lake Elmo, MN 55042
(651) 351-1038
e-mail: farmcrew@bitstream.net

This CSA is offers food and flowers grown within a cluster housing community in Lake Elmo.

Nature's Nest

Catherine Rose
5412 Brighton Avenue SE
Montrose, MN 55363
(612) 972-6891
e-mail: naturnst@soncom.com

This CSA serves the western metro. They have a guest house for members that want to stay over night on the farm.

North Creek Community Farm

Kate Stout
N14227 290th Street
Prairie Farm, WI 54762
(715) 455-1569
e-mail: kstout@win.bright.net
web site: www.win.bright.net/~kstout

Members receive produce and flowers weekly. They serve the metro area.

Pastures A' Plenty

Jim, LeeAnn and Josh VanDerPol
4075 110 Ave. N.E.
Kerkhoven, MN 56252
(320) 847-3432
web site:
<http://www.prairiefare.com/farmweb/prairieem/praiiemhp.htm>

The VanDerPols raise hogs, sheep and cattle on their 320 acre farm, and sell direct to the consumer. They have been raising their animals through alternative production systems (pasture and deep straw bedding) since 1991. They employ the Holistic Management Model that accounts for environmental, community and family interests while maintaining profitability.

Plowshare Community Farm

Erika Jensen
PO Box 14
Prairie Farm, WI 54762
(715) 455-1967

This CSA serves Minneapolis and St. Paul.

Riverbend Farm

Greg & Mary Reynolds
5405 Calder Ave SE
Delano, MN 55328
(612) 972-3295
e-mail: riverbend@usinternet.com

This farm both sells direct to co-ops and restaurants and operates as a CSA.

Shary's Berries

Shary Zoff
Duluth, MN

Shary Zoff grows berries and vegetables on her 40 acre farm. She sells her certified organic produce to the Whole Foods Co-op and at farmers' markets in Duluth.

Snowy Pines Restoration

Greg Nolan and Marcia Rapatz
Browerville, MN

Snowy Pines is a family owned mill that harvests trees selectively out of its forest. Their goals also include reforestation around the area.

Spring Hill Community Farm

Michael Racette & Patty Wright
545 - 1 1/2 Avenue
Prairie Farm, WI 54762
(715) 455-1319

This CSA has the members deliver the produce to the other members in the Twin Cities. At least once a season, each member is required to act as delivery person.

Swenson Orchards

145 60th Avenue SW
Montevideo, MN 56256
(320) 269-7838
web site:
<http://www.prairiefare.com/farmweb/swensons/swensonhlp.htm>

This family run fruit farm offers organically grown apples, jams, preserves, onions, pumpkins, gourds, corn and raspberries.

TendHer Fields Farm

Nikki Nau & Andrea Richardson
4320 Ewing Avenue South
Minneapolis, MN 55410
(612) 728-7966

This CSA offers organic and biodynamic vegetables and herbs. They also encourage members to submit articles to their newsletter.

Webster Farm Organics

Nett Hart & Tamarack
P.O. Box 53
Foreston, MN 56330
(320) 983-2289

This organic farm practices radical wholism relying solely on natural processes to grow vegetables, herbs and flowers.

Wilder Forest Farm

Joe Lancaster
14189 Ostlund Trail N.
Marine on St. Croix, MN 55047
(651) 433-5198

Owned and operated by the Amherst H. Wilder Foundation of St. Paul, this is an educational farm and CSA serving the Twin Cities. They also accept memberships donated to food shelves.

Wildrose Farm

7073 Nickel Road
Breezy Point, MN 56472-9406
(218) 562-4864
web site: <http://www.wildrose.com>

The Wildrose Farm grows organic cotton and has a clothing design studio on the homestead. The farm recently received a Governor's award for Excellence in Waste and Pollution Prevention.

7. Directories

Alternative Farming Systems Information Center

<http://www.nal.usda.gov/afsic/csa/states/MNfarm.htm>

This USDA operated directory lists farms by state. The directory includes contact information and areas served.

Eatwild Grassfarmers

<http://www.eatwild.com/suppliers.html#Minnesota>

The Eatwild Grassfarmers' Directory calls itself "the most comprehensive listing of grassfed producers available." They have listings, with contact information and a description of farms in the United States and Canada.

Minnesota Countryside

<http://www.mncountryside.org/>

This site provides a two- to three-page summaries of many rural businesses including direct marketing and farming businesses and communities.

Land Stewardship Project and the Minnesota Food Association

"Community Supported Agriculture: CSA Farms, 2000 Directory"

Available at: <http://www.misa.umn.edu/~lsp/csa00.html>

Minnesota Food Association (MFA)

753 Harding Ave. NE

Minneapolis, MN 55418

(612) 331-4324

Provides a list of CSAs in the Twin Cities region. Includes contact information for each farm and a short write-up about the farm, products available and location.

Land Stewardship Project also has a short web directory for farms in Western Minnesota. This website has nice graphics, map, contact information and link to the farms websites.

Local HARVEST

<http://localharvest.org>

Farmers sign up to be added to their national point and click map. CSAs, farmer's markets and other direct marketing farms are shown on the map.

Smallfarms.com

<http://www.smallfarms.com>

Lists farms by state including contact information and products available.

Southeastern Minnesota Farmer to Consumer Directory

Land Stewardship Project

http://www.misa.umn.edu/~sfa/lsp_sefarmdir.html

This directory lists 19 farms in the southeastern Minnesota area.

Sustainable Farming Connection

<http://ibiblio.org/farming-connection/>

Lists farming groups by state.

Whole Farm Coop

<http://www.alexweb.net/wholefarmcoop/member.html#home>

Lists members of the co-op with a nice write up of the farm and the philosophy of the farm. The cooperative has 27 member profiles listed.

Sources for resource list:

Land Stewardship Project and the Minnesota Food Association, "Community Supported Agriculture: CSA Farms, 2000 Directory," November 9, 2000, available at: <http://www.misa.umn.edu/~lsp/csa00.html>

Land Stewardship Project and the Southeast Minnesota Chapter of the Sustainable Farming Association, "Southeast Minnesota Farmer to Consumer Directory for 1998-1999," available at: http://www.misa.umn.edu/~sfa/lsp_sefarmdir.html

Renewing the Countryside, Direct Marketing, November 9, 2000, available at: http://www.mncountryside.org/index.cfm?mthd=stry&s_id=40

Minnesota Department of Agriculture, *Fresh Produce & More – 2000 Directory*

Minnesota Department of Agriculture, *Greenbook 2000: Marketing Sustainable Agriculture*

Minnesota Department of Agriculture, *Specialty Meats Directory*

Minnesota Association of Meat Producers Directory, 2000-2001

8. Selected web sites:

- Minnesota Department of Agriculture, Minnesota Grown Program.
<www.mngrown.com>
- Land Stewardship Project – includes directory of Upper Midwest CSAs.
<www.landstewardshipproject.org>
- Minnesota Institute for Sustainable Agriculture (University of Minnesota)
<www.misa.umn.edu>
- Brief summaries of specific sustainable farms
<www.mncountryside.org>
- Western Minnesota Natural Farm Produce
<www.prairiefire.com>
- West Central Farmer to Consumer Directory
<www.misa.umn.edu/~lsp/ftcwest.html>
- Prairie Pride Farms
<www.prairiepridemn.com>
- Whole Farm Coop (30 western Minnesota growers)
<www.alexweb.net/wholefarmcoop>
- Local Harvest – national directory of local growers & CSAs
<www.localharvest.com>
- National directory of beef producers
<www.farmerdirectbeef.com>
- USDA National Organic Program
<www.ams.usda.gov/nop/>Community Alliance with Family Farmers. 2000 National Organic Directory
<www.caff.org>
- Organic Alliance: Upper Midwest Resource Directory & Upper Midwest Organic Livestock Producers Directory
<www.organic.org>
- Organic Consumers Association (Little Marais)
<www.organicconsumers.org>
- Organic Farmers Marketing Association (La Farge, WI)
<web.iquest.net/ofma>

9. Other Resources

Minnesota Department of Agriculture, Minnesota Grown Program. Contact at www.mngrown.com or (800) 657-3878.

Minnesota Department of Agriculture (1998). *Starting a Food Business in Minnesota: A Guide*.

Minnesota Department of Agriculture, *Greenbook 2000: Marketing Sustainable Agriculture*.

Minnesota Working Group on Whole Farm Planning (1997). *Whole Farm Planning: What it Takes*. White Bear Lake: Land Stewardship Project.

Appendices

Appendix A: Farming in relation to other businesses

*[Fillmore, Goodhue, Houston, Mower, Olmsted, Wabasha and Winona Counties].
All data for 1997 unless specifically stated.*

Farm economy related to other businesses:

Total farm marketings (1997) \$866 million
Total retail sales (1996) \$5.6 billion
Farm proprietor's and laborer's net income: \$122.5 million (2% of total income)
Number of farms (1997): 8,436
Number of commercial and industrial firms: 8,413
Farm employment: 12,559 (8% of total employment)
Farm proprietors: 10,264
Proprietors of nonfarm businesses: 29,729
Total retail employment: 151,000

Number of food related businesses:

Eating & drinking establishments: 616
Retail food stores: 210
Agricultural services: 146
Producers & Processors selling direct to consumers: 76
Food manufacturing: 48
Community Supported Agriculture (CSA) farms: 3

Food related business sales:

Revenue from manufacturing food and related products: \$242 million
Retail food sales: \$456 million (1996)
Revenue earned by food and drinking establishments: \$218 million (1996)

Average weekly wage for food-related workers:

Food Manufacturing	\$637.56
Agricultural Services	\$338.86
Retail food	\$217.35
Eating & Drinking Establishments	\$154.52

Appendix A, continued
Farming in relation to other businesses in Southeastern Minnesota
[Fillmore, Goodhue, Houston, Mower, Olmsted, Wabasha and Winona Counties]
All data for 1997 unless specifically stated.

Food and related products as a percentage of nondurable manufacturing revenue:

92 % (Mower Co.)
 86 % (Wabasha Co.)

Food sales as a percentage of all retail trade (ranked in order):

26 % (Goodhue Co.)
 20 % (Houston Co.)
 20 % (Wabasha Co.)
 19 % (Mower Co.)
 17 % (Fillmore Co.)
 14 % (Winona Co.)
 12 % (Olmsted Co.)

Eating & drinking sales as a percentage of all retail trade (ranked in order):

24 % (Winona Co.)
 23 % (Mower Co.)
 22 % (Olmsted Co.)
 22 % (Goodhue Co.)
 17 % (Fillmore Co.)
 17 % (Houston Co.)
 17 % (Wabasha Co.)

Sources:

Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.
 USDA Natural Resources Inventory, 1982 <http://www.ers.usda.gov/briefing/AREI/newarei/Areil_300impacts.pdf>, p. 32, viewed in October, 2000.
 USDA/ERS, Agricultural Resources and Environmental Indicators, 1996-1997. Agricultural Handbook Number 712, p. 18.
 Minnesota Department of Economic Security Research and Statistics Office (1997), as profiled in University of Minnesota Extension County Summaries: Profile of Business and Labor.
 Minnesota Department of Revenue Sales Tax receipts for 1996, as profiled in University of Minnesota Extension County Summaries: Profile of Business and Labor.
 University of Minnesota Extension County Summaries: Agricultural Profile.
 Minnesota Department of Agriculture (2000). *Minnesota Agricultural Statistics 2000*.
 Minnesota Department of Revenue Sales Tax receipts for 1996, as profiled in University of Minnesota Extension County Summaries: Profile of Business and Labor.

Appendix B: School expenditures for school lunches**Expenditures by school districts for school lunch programs****Food Service Expenditures per County (1998-1999)**

County	ADM*	Expenditures per ADM	1998-99 Expenditures
Fillmore	3,495	\$315	\$1,100,925
Goodhue	7,768	326	2,532,368
Houston	3,527	314	1,107,478
Mower	5,994	299	1,792,206
Olmsted	20,865	264	5,508,360
Wabasha	5,337	288	1,537,056
Winona	6,765	265	1,792,725
Total	53,751		15,371,118
State	846,223	\$281	\$237,788,663

Source:

Minnesota Department of Children, Families and Learning, "School District Profiles, 1998-99," available at: <http://cfl.state.mn.us/FIN/profiles/98-99/profiles9899.PDF>

*Note: ADM = Average Daily Membership

Appendix C: Related household data

*[Fillmore, Goodhue, Houston, Mower, Olmsted, Wabasha and Winona Counties].
All data for 1997 unless specifically stated.*

Related data for all households in the region:

Income from interest, dividend, or rent payments: \$1.6 billion

Retirement income: \$902 million

Income earned by nonfarm, individual business owners: \$439 million

Income earned from sale of lumber and wood products: \$23 million

Revenue earned by health services: \$182 million

Budget of all government services: \$641 million

Total full-time and part-time employment: 203,810 (full time: 151,000)

Farm employment: 12,559 (8% of total employment)

Farm proprietors: 10,264

Proprietors of nonfarm businesses: 29,729

Medical payments made by public sources: \$367 million

Sources:

Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

Appendix D: Farm property tax payments

*[Fillmore, Goodhue, Houston, Mower, Olmsted, Wabasha and Winona Counties].
All data for 1997 unless specifically stated.*

Farm property taxes:

Total property tax levy for all seven counties: \$245 million.

Property taxes paid by farms: \$34 million.

Net income for all farmers in all seven counties: \$122 million.

Farm property taxes as percent of total (1997): 14%

Farm property taxes as percent of total (1980): 26%

Percent of farm property taxes paid at non-homestead rate: 28%

Sources:

Minnesota Department of Revenue Property Tax data: Estimated Distribution of the Net Tax by Use Class by County Payable in year listed (1997).

Bureau of Economic Analysis data for 1997, <<http://www.bea.doc.gov/bea/regional/reis>> viewed on September 28, 2000.

Appendix E: Five-year trends in farm income and expenses (1994-1998)

[Fillmore, Goodhue, Houston, Mower, Olmsted, Wabasha and Winona Counties]

The year 1997 was chosen for this study because it allowed an easier comparison among different data sets. This is the year of the most recent farm census, and fairly complete economic data are available for this year. In addition, other data sets offer data for that year.

However, it would be impossible to select any single year that was "typical." This is especially difficult in this case since 1997 was the first year following passage of the 1996 Farm Bill. To the extent that this farm legislation may have altered conditions for farmers, relying solely on that year could be misleading.

Fortunately, the Bureau of Economic Analysis data used for this report are posted for the years 1994 through 1998. A brief review of these data was performed to gain a better sense of the limits of our findings.

This review shows that farm income and expenses for the seven-county region did not dramatically change over the five-year period. The year is a fairly suitable representative of the post-farm-bill years, given that later years' data has not yet been released. However, it was a slightly worse year for farmers than average, with lower farm income than farmers earned in 1994, 1996 and 1998.

As the graph and chart below show, cash receipts from farm marketings declined sharply from 1996 to 1997, after three years of increase. This forced farmers to come up with other ways of earning income, and also forced the federal government to pay more farm supports (\$82 million) in 1998 than it had in any of the prior four years. Farm expenses rose dramatically in 1997 and held steady the next year.

All told, the region's farmers suffered a total deficit of \$210 million over the five years, an average of \$42 million per year – the amount by which farm expenses exceeding cash receipts from marketing farm products. There were only two years in which marketing receipts exceeded expenses.

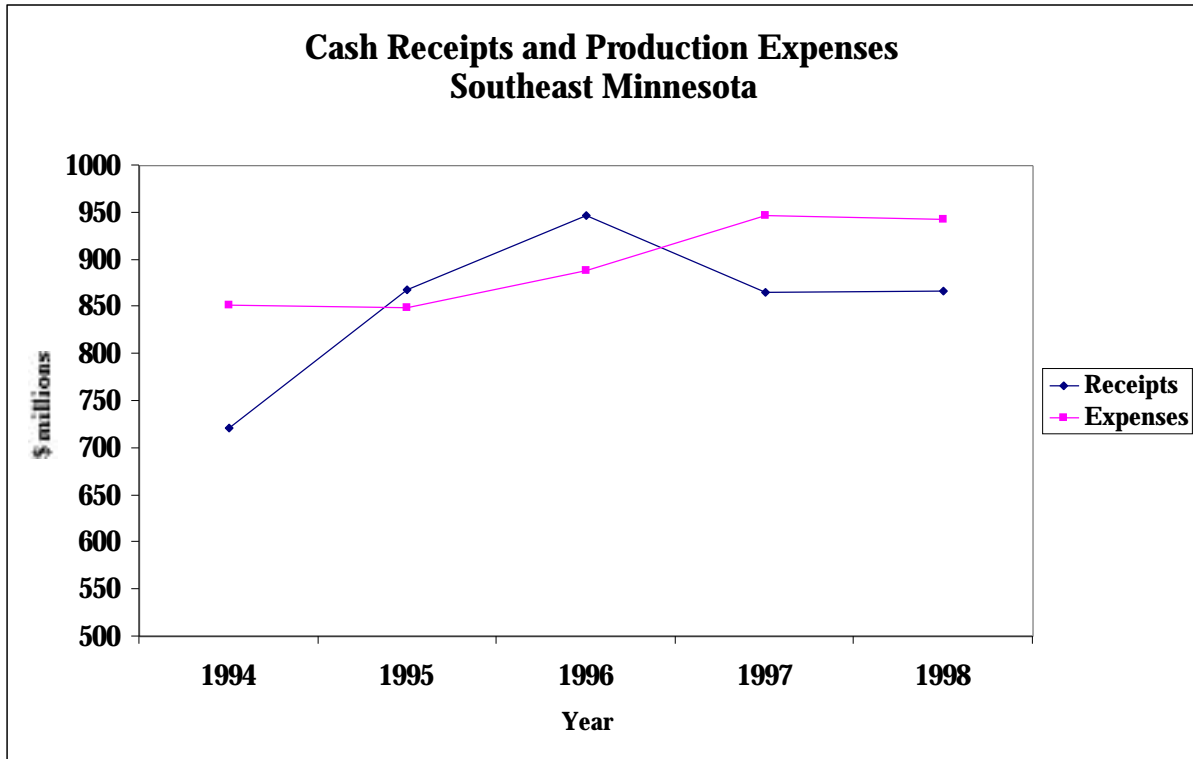
Footnotes for Bureau of Economic Analysis data table on page 62:

1/ Consists of imputed income, such as gross rental value of dwellings and value of home consumption, and other farm related income components, such as machine hire and custom work income, rental income, and income from forest products (1978 to present).

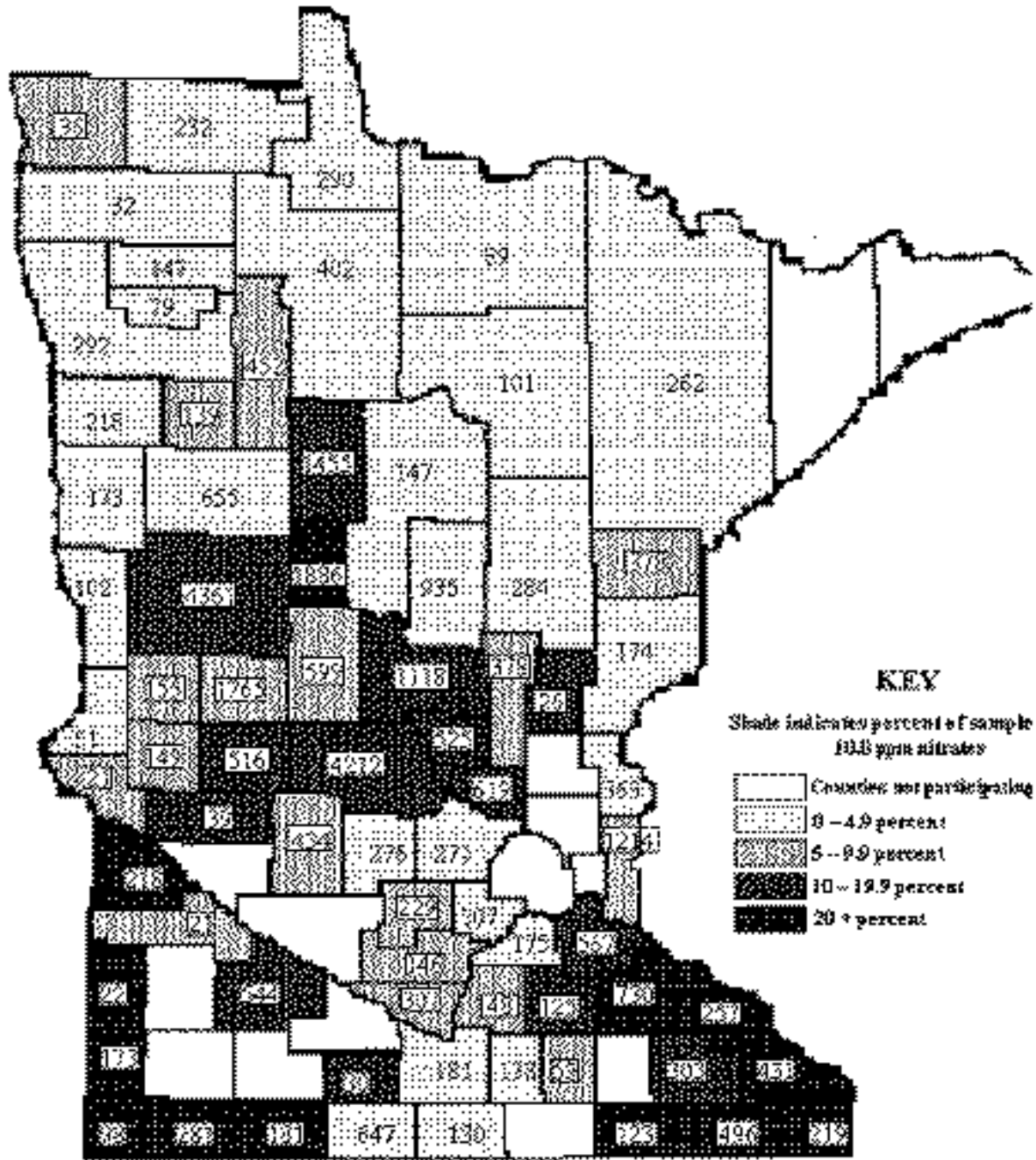
2/ Consists of hired workers' cash pay and perquisites, employers' contributions for social security and medicare, and payments for contract labor, machine hire, and custom work.

3/ Consists of repair and operation of machinery; depreciation, interest, rent and taxes; and other miscellaneous expenses including agricultural chemicals (1969–77).

Appendix E, continued



Appendix F: Evidence of nitrate contamination in Minnesota wells



Source: Minnesota Department of Agriculture, Agronomy & Plant Protection.

Note: The number given in each county is the number of wells that have been tested under a voluntary program from 1993 to 2000.