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***Tools for Community Self-determination***

### **Mapping the Minnesota Food Industry**

Prepared for  
**Blue Cross and Blue Shield of Minnesota**  
Center for Prevention

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## Mapping the Minnesota Food Industry

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## **Mapping the Minnesota Food Industry**

### **I. EXECUTIVE SUMMARY**

Healthy eating has economic implications, and is also limited by economics. It is shaped by historical trends, and by the physical, knowledge and policy infrastructures that uphold our food systems. This paper is an effort to provide a road map that can guide the reader through the complexity of these overlapping arenas. It is informed by systems thinking, financial summaries, and historical insights — yet at its core it draws closely on the comments of “wise practitioners” who know the food industry from direct day-to-day experience.

As a systems view, this analysis depends upon several key insights: (1) that different understandings of the same system will be constructed from diverse viewpoints. It is necessary to adopt several points of view to have any satisfactory notion of the system’s workings; (2) that important lessons are, in particular, to be learned at the margins of the system; (3) that time-series data is a potent tool in identifying trends over time that show how the system is adapting, and what it exchanges with its environment; and (4) that wise practitioners will often have the best insights into deeper system dynamics. This analysis also assumes that system “levers” exist at which significant shifts in the system can be made.

It would be most accurate to state that Minnesota has multiple, overlapping food *systems* — that interact with local, regional, national and global systems encompassing ecology, climate, geography, populations, commerce, finance, trade, and a multitude of other issues. To draw a boundary around these, and to call this the “Minnesota food system,” is fairly arbitrary. Yet this choice of boundaries does allow us to simplify our discussion of food in Minnesota.

From an economic perspective, this statewide analysis shows that by any measure, food is important to the Minnesota economy. State households buy more than \$12 billion of food each year, supporting a variety of farms, processing, and distribution firms, though not necessarily firms inside state boundaries. Minnesota’s 80,000 farms, and 17,000 food-related businesses, support 101,000 farm operators, and hire a combined 316,000 employees who earn \$7.8 billion of wage and farm income.

Of the state’s top 20 manufacturing firms, seven are food manufacturers and distributors. These seven earn \$114 billion of revenue each year — 65 percent of all sales made by the state’s leading firms.

The seventh largest farm state in the U.S., with \$13 billion in farm sales, Minnesota has an ideal growing climate for a variety of farm products, and holds an enviable position in global trade due to its financial prowess and access to transportation. Harsh winters do limit the growing season, and prevent many delicate crops from being commercially viable. Yet these same winters also reduce the number of potential pests, since many pathogens and insects do not survive the cold months. Most vegetables and animals can be raised here, along with many grains and fruits.

Yet with all of this prowess, food also poses critical dilemmas to the state. Two of every three Minnesotans are overweight. Nearly a third of all residents are obese. The Centers for Disease

Control estimates the costs of treating obesity-related diseases in the state to be \$1.3 billion — and other researchers report twice those costs. Food-related medical conditions have become a leading cause of death. Although mortality rates for diet-related diseases in the Twin Cities are among the lowest for metro areas in the U.S., only 24% of adults eat the recommended five servings of fruit and vegetables per day.

Moreover, many Minnesotans do not experience “average” health rates. This is particularly true among populations the Center for Prevention has slated for priority attention. Death rates for African-Americans with cancer or heart disease in the metro area are 20% higher than for Whites, as the Big City Health Inventory shows. Low birthweight babies are 80% more likely in African-American households than in White homes. Hispanic homes, on the other hand, have the lowest rates. Mortality from diabetes is also higher among priority populations.

Simultaneously, hunger is pervasive. Over 929,000 residents (19% of the population) earn less than 185% of the federal poverty level — barely a living wage — and the level at which public school students qualify for free or reduced-price school lunch. Although these low-income residents spend \$1.7 billion buying food each year, their food needs often go overlooked in the mainstream marketplace. They rely on \$303 million in food stamps (18% of their food expenditures) and additional millions of WIC coupons to make ends meet. The Minnesota Emergency Food Shelf Network reports rising needs for food, and a diminishing supply.

Nor are the primary producers of foodstuffs on solid economic grounds. Although some farm leaders proudly proclaim the recent rise in commodity prices a great benefit to farmers, farm income nationally was lower in 2007 than it had been (in inflation-adjusted dollars) in 1929, following a decade of farm depression. This farm depression was a core cause of the Great Depression.

The most recent economic data covering farmers in Minnesota, for the year 2007, shows that state farmers spent \$465 million more in production expenses than they received in cash receipts for selling their products — over *each* of the past 10 years. Despite doubling productivity, Minnesota farmers earned \$1.1 billion less from production in 2007 than they did in 1969, in inflation-adjusted dollars. This makes Minnesota farmers deeply dependent upon nearly \$1 billion of federal subsidies each year, along with another \$483 million of farm-related income (such as renting out land). Primarily, however, farm families rely upon off-farm jobs — and tax policies that allow them to write off production costs and capital depreciation.

Leading this erosion of the farm economy is a decline in cash receipts for livestock and related products, from \$7.8 billion in 1969 to \$6 billion in 2007. The ability of state farmers to create wealth by raising livestock wanes as feedlots and industrial poultry barns spring up outside the state. This not only removes livestock from Minnesota, it also reduces margins for those that remain.

This is of particular concern because over 90% of Minnesota’s farm commodity sales involve animals or related products, or the grains that feed those animals. Indeed, Minnesota is home to an inventory of 16.7 million laying hens and broilers, 15.5 million turkeys, 6.4 million hogs and pigs, and 2.2 million cattle and calves.

Not only does this declining economic base weaken the plight of state animal producers, it also embeds significant energy costs into our food bill. All told, the Aldo Leopold Center for Sustainable Agriculture at Iowa State University measures that the average food item in the Midwest travels

1,500 miles from the producer to the ultimate consumer. This makes our food supply deeply vulnerable to rising energy costs — when, as a nation, the U.S. already spends \$139 billion per year paying for the energy used to run our food systems.

Primarily, Minnesota farmers produce commodities for a global market. Essentially, their economic role is to serve as raw materials destined for further processing. Even the cattle, hogs, or milk produced in such large quantities in the state don't become consumer food items without substantial processing.

Consequently, only 0.3% of the food products sold by farmers are sold directly to their ultimate consumers. This \$23 million of sales is actually quite significant, larger than the oat, apple, or sheep markets, and nearly as large as sunflower sales. Yet the lower level of direct sales is also troubling in a major farm state anticipating limited fuel supplies, and focused on selling to distant commodity markets.

Also troubling is the fact that wages paid to farm labor are declining. Total farm payroll (including nonmigrants) peaked at \$916 million in 2001, and fell 13% to \$795 million in 2007. More ominous, the average annual wage paid each of the state's 97,000 farm laborers declined from \$9,928 to \$7,216 (27%) in that same six-year period. These data include only the official transactions reported by farmers to the government, hiring local youth, neighboring farm laborers, and some migrants — it would be surprising if many of these payments were closely tracked by government officials.

No solid data appear to be available covering migrant laborers in the state, let alone in the food industry. Yet attorneys who work closely with migrants report that workers faced increasing pressure after enforcement efforts were stepped up in 2001. More and more farmers are boosting chemical use, rather than hiring farmworkers to tend their fields. Many farmers have waited until the last minute to call labor from Texas and its border region, from which most Minnesota migrant workers come. These uncertainties have pushed many migrants to work in meat processing plants and industrial dairies, or as truck drivers, where work is more steady.

If the goal of a food system is to build health, wealth, connection and capacity in Minnesota communities,<sup>1</sup> clearly our current food system falls far short. Health outcomes are less than ideal; wealth is badly distributed; producers are distanced from the ultimate food consumer, and many Minnesotans have no idea that the source of their milk, for example, is cows on farms, rather than waxed cartons sitting in a store cooler.

An overview of economic fundamentals shows several key insights:

1. The economics of the food industry do not reflect “free market” dynamics. This is true by definition, since a free market requires (a) equal access to participation in the market; (b) relatively equal power for all marketplace participants; and (c) equal access to trading information. None of these conditions are met. Rather, immense imbalances of power, access, and information are the norm.
2. Food markets are, moreover, strongly influenced by government regulations and public incentives. The economy is part of the “built environment,” not a feature of natural law. Many of its structures, rules and incentives are a product of human action, and may be altered by human action.
3. Economic efficiency is not always the driving force of the food industry. In fact, many firms have become larger than efficiency alone would dictate.

4. Nevertheless, the logic of commodity markets does place a premium on lowering costs per unit. There often is fierce competition among food wholesalers based on this goal of reducing margins. This puts the squeeze on food distributors, but even more so on producers.
5. Food producers are inherently disadvantaged in market contexts, since they face risks of climate and physical labor that are not endured by other players in the system. This places a responsibility upon public policy to compensate for these disadvantages.
6. However, paying cash subsidies for commodities — whether for wheat, milk, or for green peppers — risks severe unintended consequences, as will be seen below. A better use of public dollars would be to create lasting investments in community capacity, environmental protection, and other physical or knowledge infrastructures that intentionally create local efficiencies.
7. Although lowered margins do reduce costs to consumers, monopoly power (to be more precise, the combined power of monopsony buyers) within the food industry tends to hold retail food prices higher than they would be in a more competitive environment.

Responding to these underlying pressures, a movement focused on increasing local food trade emerged in Minnesota in about 1969. This movement echoes similar self-sufficiency strategies that were launched during both World Wars and the Great Depression.

The birth of this movement can be traced back to a farm in western Wisconsin, where a group of aspiring farmers and urban consumers met to frame a strategy for building a cluster of food firms that would localize farm production and processing. The first expression of this vision was a cooperative grocery store; many sister businesses opened within a few years. The impacts of the work launched by these visionaries still pervades commercial food businesses throughout the region — indeed, the nation. In recent years, this local foods movement has also manifested itself in medium-scale, independent private businesses, who find themselves wrestling with the workings of the commodity industry itself.

Interviews with the “wise practitioners” who lead this emergent movement have proven exceptionally revealing. While many of the people who agreed to be interviewed for this study run multi-million-dollar businesses, each has encountered potent obstacles in the markets they serve. Collectively, their insights mount a significant critique of a food system that is based primarily on commodity trade, though each has successfully worked around many of its limitations. They identify the following issues:

1. The commodity market, with its narrow emphasis on lowering price margins, cannot adequately reward producers for bringing high quality products to market. This means that even successful firms are increasingly being squeezed, and feel vulnerable.
2. This focus on price also “dumbs down” the food system, creating a lack of resiliency that limits its ability to cope with change.
3. Consumers who can afford to are rejecting the impersonal nature of commodity trade in favor of experiences that offer more authentic connection.
4. Given the uncertainties of energy costs and availability, commodity prices, grain speculation, capital markets, climate conditions and climate change, the food system of the future will need to build greater resiliency.

5. The very size and narrow commodity focus of some of the larger firms may at times interfere with a larger firm's ability to act proactively in changing circumstances; many have left this pioneering work to small and medium-sized firms.
6. The best hedge for uncertainty that emergent food leaders have found is to form loyal, flexible relationships with others in the food system.
7. By contrast, the commodity system builds relational loyalties that are based on financial incentives, often intended to create dependency rather than mutual respect.
8. Solid personal connections have been built among emerging movement leaders. These may at times override narrowly commercial concerns such as price, productivity, scale, and efficiency. The same thirst for relationships is found among low-income community leaders, who view individualism as a key factor in persistent poverty.
9. One hallmark of the quality of these personal relationships is that those who participate in reconfiguring the food system inevitably end up doing business for reasons that expand beyond the immediate self-interest of the firm itself. Their concept of the boundaries of their business is itself somewhat flexible, and tempered by community concerns.
10. Often, medium-size firms that might have reasons to compete with each other may mutually agree to limit competition, or even to collaborate with each other in limited ways, for the sake of a broader community good.
11. Some firms have even gone so far as to spin off independent firms that help fill a need the parent company cannot fill on its own. While this launches a potential competitor, formal or informal agreements limit the extent of the impact on the parent and child firms alike.

The most significant feature of these emergent food industries is that they have the capacity to self-organize. That is to say, they are an independent response to concerns that have arisen in very specific contexts. These firms may or may not “go to scale;” their strength may rather be that they closely suit the context in which they were born, and reflect the inward aspirations of the people who dwell within that context. Still, outside support may be essential in the early phases. There is public reason to lend support, since Minnesota's food system is likely to be more resilient, and democratic, if it based on self-organized initiatives.

Investments in healthy eating initiatives by Blue Cross and Blue Shield of Minnesota's Center for Prevention should address the following core strategies:

1. Understanding the basic workings of both prevailing and emerging food systems — as this document outlines — will be essential if investments are to be effective.
2. The Center for Prevention will want to devise its own strategic vision spelling out the purposes it wishes healthy foods initiatives to achieve. It is the assumption of this document that building a vibrant local food system — one that builds community health, community wealth, community connection, and community capacity — will create a lasting foundation for healthy eating.
3. Building resilient food systems — ones that can adapt to changing circumstances — will be essential, given resource uncertainties.
4. Strategies for measuring success in these initiatives should focus on defining measures that (a) illuminate essential system “levers” that have the power to create systems change; (b) express the complexity of food systems in relatively concise ways; and (c) are valid

and useful across multiple potential future scenarios. Further, these strategies should address (d) deeper system dynamics as well as surface conditions.

5. The key lever that appears to be shifting food systems in Minnesota — at all levels — is relationship-building.
6. Whether relational commerce survives is primarily a matter of creating appropriate public incentives, physical and knowledge infrastructure, and lasting efficiencies to the local, rather than a matter of following abstract economic rules. The core insight of the emergent food system is a conviction that commerce must value more than money — for example, social connection, personal capacity, and high quality produce.

This analysis of the Minnesota food system closes by identifying the following levers that would promote systems change, leading state residents to healthier lives through healthier food:

### **Levers for systems change**

1. Plan for food over the long term.
2. Plan for resiliency and redundancy.
3. Foster economic transactions that improve soil, water, and air quality, and reduce greenhouse gas impacts.
4. Protect farmland in urban, suburban and rural areas.
5. Grow new farmers.
6. Plan and build storage and distribution networks that create local efficiencies.
7. Create “value networks” that allow large and small firms to flourish.
8. Invest in those who are most vulnerable.
9. Create public and private incentives for quality.
10. Emphasize equity investment.

These may be distilled into three themes:

1. Relationships
2. Resilience
3. Recycling

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### **II. SNAPSHOTS**

The following vignettes illustrate specific features of the food industry in Minnesota. Below, four key food items are traced from producer to consumer, through a variety of large and small channels. Each food was chosen because it is an essential item in a typical consumer's diet, an important factor in health, and a significant Minnesota product. These impressionistic accounts will hopefully serve both to ground the analysis that follows, and will illustrate some of the complexity of the state's food system.

#### **DAIRY**

##### **Cedar Summit Farms (New Prague)**

Dave Minar strolls the rolling fields of the southwestern suburban lands near New Prague, Minnesota. Walking land in a community that has been his family's home since 1860, when his Czech ancestors sought out a community of cultural peers, Minar grew up milking cows in austere conditions. Now his view encompasses computer-designed mansions that scatter along the horizon. His own farming practices are a similar blend of new technology and traditional practices.

Minar, his wife Florence, and their five children made a courageous leap six years ago when they decided to process milk from their cows on their own farmstead, which has 180 acres of grazing land. "It was brainstorming gone awry," Florence now says, with a twinkle in her eyes. After taking courses in holistic management, the Minars had drawn a large map of their land on butcher paper, and asked themselves what they could do to earn more money on their farm, so their children could have a future there. They invited a group of trusted friends over to brainstorm some possibilities.

"We had been selling our meat direct to customers for years," Dave added. "We had a list of 600 people who bought from us." Florence added, "We were selling our meat as a premium product because it was grass-fed. But we were just dumping our milk in with the rest of the stuff [at the creamery]." Over time, through discussions with friends and family, the couple realized, "We had this good product [our milk] and we were just throwing it away."

Purchasing state-of-the-art equipment, valued at over a million dollars, from an Israeli manufacturer, they charted new ground for the Minnesota dairy industry. Although a reliable commercial milk processor operates just a few miles away, the Minars took this financial plunge because they wanted to produce a more differentiated brand of milk that came solely from their farm.

Their Cedar Summit brand was one of the first in the region to be produced from grass-fed cows. Soon they also certified their farm as organic as well. Bringing back traditional heavy glass bottles to showcase their milk and cream, the Minars also spurned homogenization. The heavy layer of cream that sits atop their milk, visible through the glass container, became a selling point. Yet the Minars also consider this separated milk healthier to drink. They package this dense cream separately in styled bottles, and also feature ice cream. An experiment with yogurt failed when they realized the market was already saturated with quality competitors who could buy plastic containers at lower rates in bulk orders. Their sons are exploring cheeses they might produce with this specialty milk.

The Minar family's good-natured ability to reach out to the public, and their proximity to the Twin Cities, have helped ensure considerable loyalty from metro consumers. Their products are featured at several supermarkets and restaurants. They haul the milk directly from their farm on their own truck. And they have been known to pull their milk from the shelves of a store that did not buy or sell their milk at a suitable price.

### **Organic Valley Milk (Jordan)**

Just a few miles down the road, Pam Riesgraf of Jordan raises milk for the processing cooperative to which she belongs: Organic Valley (CROPP Cooperative). Riesgraf also served on the coop's board of directors. The journey traveled by her milk is quite different from that of the Minar's. Pam and her husband Jeff send the milk they collect from their 65 cows and send it to a Twin City processing plant — one of the few independents left in the Twin Cities. Although the firm also packs milk under its own label, it processes some of Organic Valley's milk as well, packed into colorful cartons for shipment to the Organic Valley warehouse in Cashton, Wisconsin, east of LaCrosse. From Wisconsin, this milk will be dispersed to warehouses throughout the Midwest.

Organic Valley originated in 1988, when eight farmers in Southwest Wisconsin met in the shadows of a national farm debt crisis that had worn their community down. Tens of thousands of farm families had gone bankrupt; many others sold their land to pay bills; foreclosure auctions were held under a premonition of potential violence. These eight farmers knew that the crisis was not the fault of the farmers who had been victimized: both private lenders and government officials had encouraged their neighbors to take on debt that could not be paid back. Those who gathered in a farm living room realized that unless they developed new marketing strategies, and formed a closer connection with consumers, their way of life would fail. After considerable starting pains, Organic Valley grew into a national cooperative, with 1,341 farmer-members and \$532 million in sales (2008).

Coop officials wish their firm were more localized than it is. Trucking food requires considerable time and expense — yet the realities of competition forced them to expand nationally to make their brand visible. They sell food primarily into major metropolitan markets; while their farm neighbors often feel the organic product is too pricey, or too unusual, to purchase. So, the coop lives with the dilemmas of marketing food from family farms into distant markets — shipping milk until a more localized system can be built.

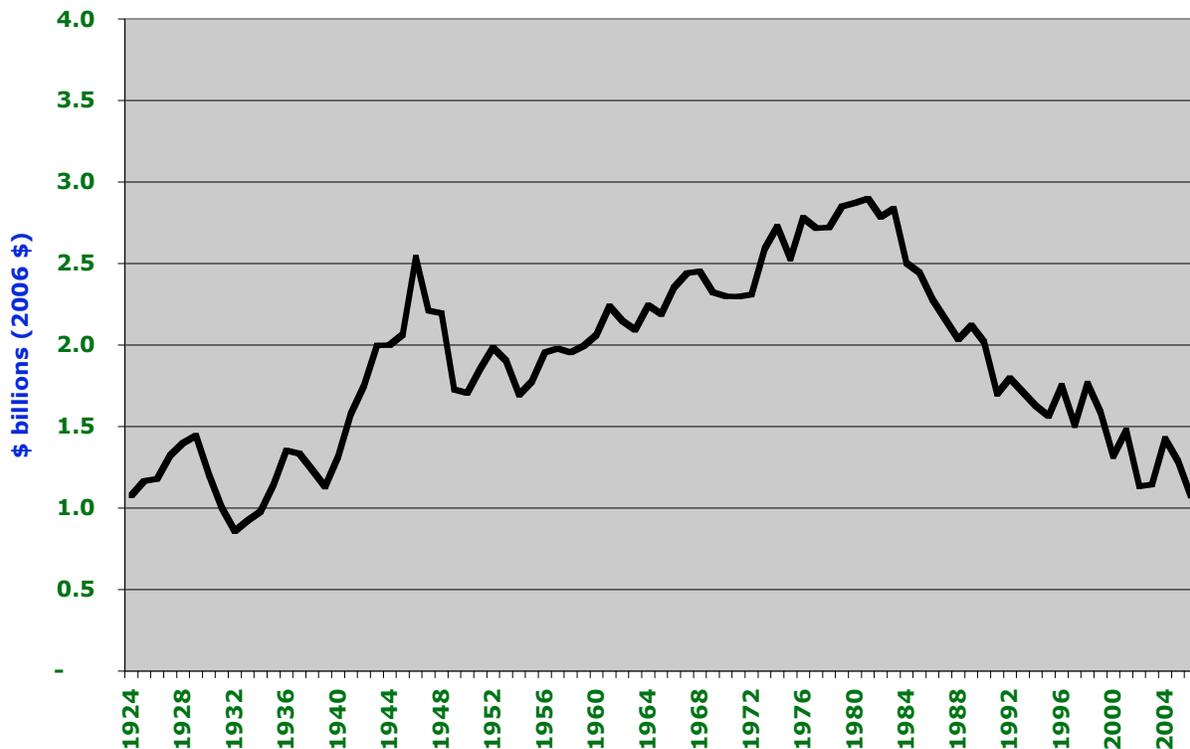
### **Commodity milk processing**

Minnesota ranks fifth in the nation in dairy production, with 6,000 dairy farms earning \$1.3 billion of farm-gate sales. Purchasing milk from them are 89 processors, hiring 5,400 employees with a \$235 million payroll and selling \$2.4 billion of processed products (in 1997). The dairy industry points out that two-thirds of the milk processed in the state is produced in Minnesota — but state consumers purchase only 17% of the processors' output. A University of Minnesota study estimates

that the dairy industry accounts for 53,696 jobs when related industries are taken into account. This would make it the second-largest employer in the state after the University itself.

Dairy farmers typically sell in bulk to processors such as Bongards Creameries, Associated Milk Producers, Dairy Farmers of America, or Land O' Lakes. Higher quality grade A milk may enter Twin Cities supermarkets under a well-recognized brand name, or be processed in yogurt, butter, or cheese. Lower quality grade B milk tends to be processed into dried milk, cheese, cheese powder, casein, whey, or other products that can be used by food processors globally. Tons of processed milk products are stored by the federal government for emergency use, and then donated to school lunch programs. The *Star Tribune* reported that dried milk exports were particularly strong in 2008 due to the depressed value of the U.S. dollar.

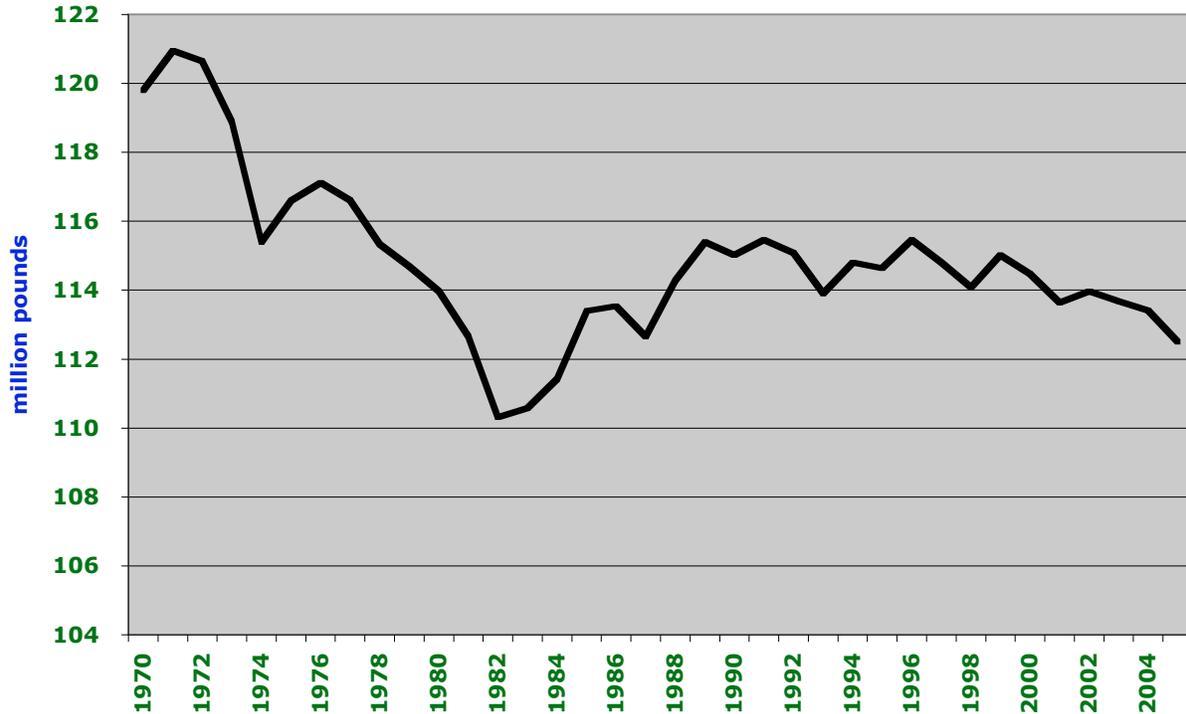
### Dairy sales by Minnesota farmers, 1924 - 2006



Source: USDA Economic Research Service. Note that dollars have been adjusted for inflation.

As can be seen from the chart, dairy sales by state farmers in 2006 resembled sales levels during the Great Depression, in inflation-adjusted dollars. Although new federal pricing policies caused the market to improve in 2007, early 2009 witnessed a deep plunge in milk prices, threatening thousands of farms nationally.

### Estimated consumption of milk and yogurt in Minnesota, 1970 - 2005



Source: USDA. This data is based on domestic disappearance data (the amount of product that is produced, imported, or in storage less what is known to flow through specific market channels for manufacturing use, exports, or storage, etc.), and may overstate the amount consumed by individual consumers.

Note that declining dairy consumption in the 1970s explains some of the reduction in farm income. Yet dairy farm income has fallen in recent years despite steady consumer demand.

## VEGETABLES

### Bushel Boy Tomatoes (Owatonna)

Jay Johnson's office at Bushel Boy Tomatoes stands near twenty acres of greenhouses where tomatoes are raised in soil year-round. Hardly a traditional industry, Bushel Boy represents an impressive glimpse of what the future of produce could be in Minnesota if rising transportation costs force greater reliance on local food production.

Over twenty years, the firm has captured what it believes is most of the Twin Cities market for high-end local tomatoes. Their firm red globes are a welcome burst of winter color on area produce shelves. While Bushel Boy still competes with tomatoes trucked in from Mexico and air-freighted from Holland, Johnson does not think there is much more consumer demand to be found at the price they need to charge. Their product has become a staple supplier for homemakers, restaurants and institutions that wish to feature tomatoes regardless of season.

Their 80 full-time employees grow, pack, and manage a statewide distribution network that ships tomatoes every day, reaching 160 grocery stores. Bushel Boy also sends a daily shipment to Bix Produce in St. Paul, which conveys tomatoes to local restaurants. To expand this operation, and to reduce per-unit distribution costs, Johnson adds, the firm is exploring the production of new vegetables. Bushel Boy, in fact, introduced lettuce into Twin Cities stores as this report was written.

### **Minnesota Emergency Food Shelf Network (Minneapolis)**

The Twin Cities' 450,000 low-income people (earning less than 185 percent of the official poverty line) face dwindling food supplies. The nation's largest supplier of food banks, Second Harvest, has changed procedures and instituted higher fees. Corporate donations have also scaled back, since "just-in-time" shipping in the food industry lowers the amount of surplus food available. This warehoused surplus was formerly a prime source for food shelves, since firms would have to weed out older packages to make way for new shipments. The food shelves served an important role in assisting manufacturers to reduce their stocks.

Thus, Tim Barnes at the Minnesota Emergency Food Shelf Network is pleased that a nonprofit firm, Food Providers of America, is loading semi loads of fresh tomatoes, peppers, and melons in Mexico during the off-season. This fresh food is donated to the food bank, providing they pay for shipping — which can run as high as \$4,000 per load. Barnes estimates that this reduces an estimated 50 million pounds of fresh foods that would otherwise be discarded in landfills annually because it could not be sold in the commercial market. Barnes hoped to bring one million pounds of that surplus fresh food to the state in 2008.

### **Garden Goddess Produce (Milan)**

The moment Carol Ford and Chuck Waibel announced they were selling fresh greens to their neighbors during the winter, here in this western Minnesota town of 320, they had a waiting list of customers. A total of 18 households signed up as members of their community-supported agriculture (CSA) farm (that is, each household invests at the start of the season to help cover the costs of raising food). In exchange, each family gets six months of fresh produce shipments.

Garden Goddess is a deeply innovative operation — delivering fresh greens only during the months of September to April. What may be the first "winter CSA" in the country focuses on producing high-quality organic produce amidst bitter cold conditions. Yet the greenhouse is so well-designed that it requires only a small backup propane heater to keep the temperature from falling below 45 degrees on cold nights. The couple estimates that it costs them about \$50 per heating season to pay for this auxiliary heat. A bigger problem is the fact that even on a windy, sub-zero day, the greenhouse may require venting, because temperatures up to 80 degrees may be too much for fragile plants.

Sending their customers a combination of lush, spicy greens (such as several varieties of mustard or watercress), bok choy, cabbage, broccoli and root crops once a week, Ford and Waibel also entice them with recipes so they will know what to do with unusual items when they arrive. The couple holds educational workshops to encourage others to build their own operations. So far, they have had overflow attendance, with as many as 50 people jamming into a 500-square foot greenhouse and

its side building. “The market for fresh greens is immense,” Ford points out. “We can’t have the entire world on our shoulders.”

Truly, the income from this operation only supplements her salary from an administrative job at a nearby college campus. Yet the investment for the greenhouse was large enough to require a bank loan, and Ford feels lucky that a local banker would take a chance on her unconventional operation.

### **Sno-Pac Foods (Caledonia)**

A national leader in distributing organic frozen fruits and vegetables, Sno-Pac Foods conveys a humility that tends to obscure its global reach. Sno-Pac also freezes berries and vegetables and packs them under a private labels for several national firms, and is an important supplier for Midwestern cooperative groceries, its president, Pete Gengler, points out.

The Sno-Pac factory is a sprawling set of industrial buildings on the southwest edge of Caledonia (population 3,000), near the Iowa border. To maintain peak quality, Sno-Pac tries to buy vegetables within 50 miles of the factory. It supplies Twin City coops and institutional buyers through commercial distributors.

Gengler adds that it is getting increasingly difficult to find farmers who will raise crops like peas, snap beans, sweet corn, carrots, and berries for processing. With land prices and input costs rising, and with corn, wheat and soybean prices escalating from an ethanol price boom, growers are sorely tempted to shift to subsidized commodities. Pete says he has made a modest increase in what he pays farmers, but cannot do more because his customers resist price increases.

### **Commodity vegetables**

Minnesota is the fourteenth-largest vegetable producer in the nation. Overall, 215,000 (87%) of the state’s 247,000 acres devoted to vegetables are dedicated to crops for processing, Census of Agriculture data show. While this is only one percent of Minnesota’s 19 million acres of cropland, and although total vegetable sales (\$366 million of “vegetables, melons, potatoes, and sweet potatoes”) amount to only three percent of total farm sales, Minnesota is renowned for its canned and frozen foods industry.

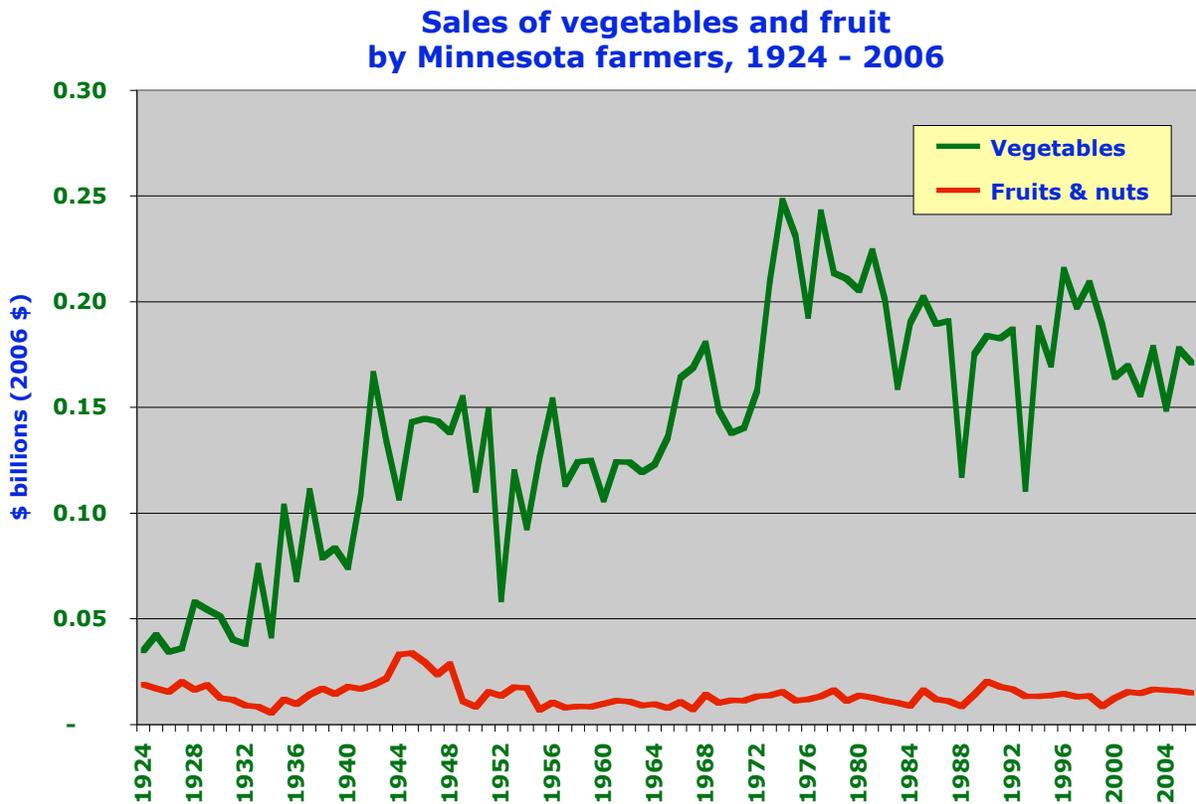
Of the 114,421 acres of land devoted in Minnesota to raising sweet corn, 106,811 acres of sweet corn are sold for processing, according to the 2007 U.S. Census of Agriculture. With \$66 million in sales,<sup>2</sup> the state produces about eight percent of the national sweet corn crop. Forty percent of all green peas in the U.S. are produced in Minnesota, worth \$40 million.<sup>3</sup> Another 5,128 acres of land are devoted to raising snap beans for processing. Although sales of snap beans place this industry among the top 25 farm products of the state, the USDA’s Economic Research Service (ERS) does not release sales data because of confidentiality concerns. In addition, 1,371 acres of state farmland are devoted to producing \$1.9 million of carrots.<sup>4</sup>

According to the Minnesota Department of Employment and Economic Development (DEED), the state’s 49 processors hire 4,470 employees, and pay a total of in \$156 million in wages.

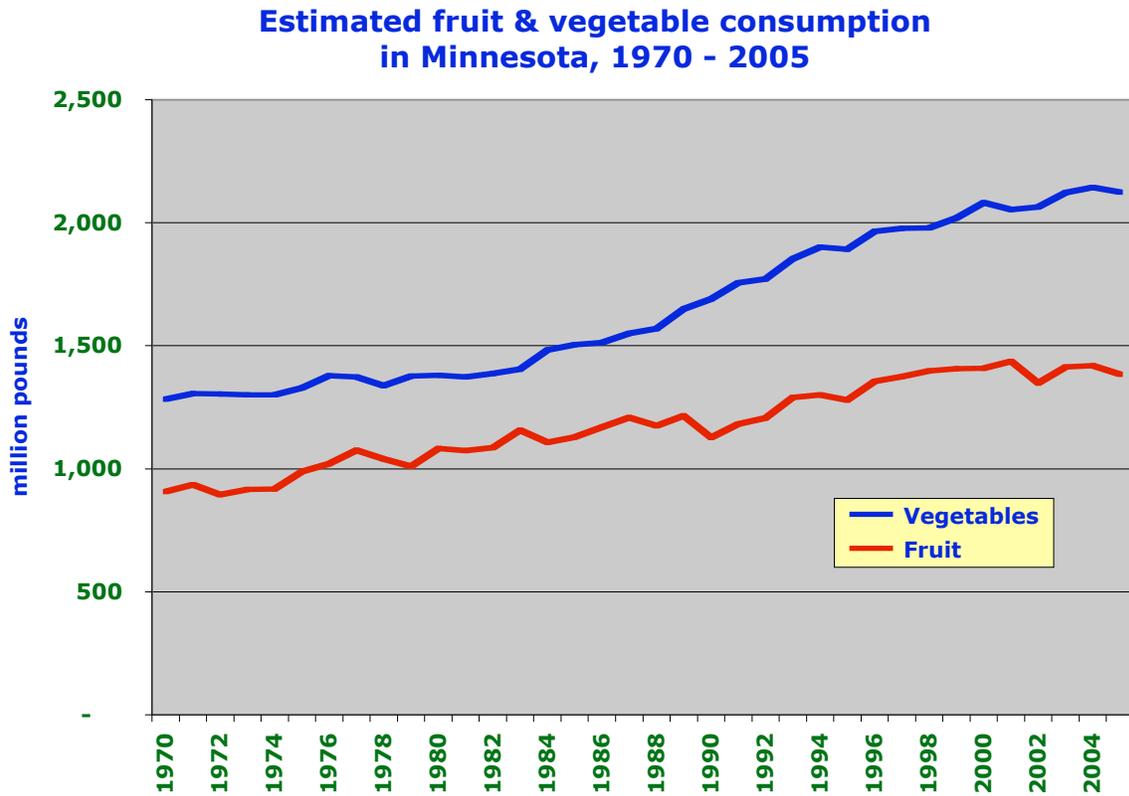
**Main processors are:**

- **General Mills** bought the Oregon firm, Cascadian, that produces high-quality organic frozen foods. General Mills also purchased the Muir Glen organic tomato line from its founders, and has developed its own Golden Seal organic flour label
- Green Giant (once owned by General Mills after its acquisition of Pillsbury) is now owned by the New York packer, **Seneca Foods**, which operates plants in Arlington, Blue Earth, Glencoe, Le Sueur (distribution only), Montgomery, and Rochester
- **Del Monte** runs a packing plant in Sleepy Eye
- **Lakeside** packs frozen foods in Brooten and Plainview
- **SnoPac**, an independent firm based in Caledonia, is profiled above

While these products show up on many grocery shelves, the economic importance of the commodity vegetable sector has eroded considerably due to a shift to production outside the U.S. As the chart below shows, farm sales of vegetables have declined since 1973.



Source: USDA Economic Research Service. Note that dollars have been adjusted for inflation. Scale of this chart is more fine-grained than for meat and dairy charts. Note that sales data for vegetables differ from 2007 Census of Agriculture.



Source: USDA. This data is based on domestic disappearance data, and may overstate the amount consumed by individual consumers.

Clearly, returns to Minnesota farmers for producing vegetables are not keeping pace with rising consumption. Many of the vegetables available in state groceries were imported from out of state.

## **BEEF**

### **Thousand Hills Cattle Company (Cannon Falls)**

Todd Churchill sits at a small desk at the side of a warehouse south of Cannon Falls, Minnesota, from where he orchestrates a complex set of relationships that originate as far away as the sandy plains in Nebraska and end up in Twin Cities restaurants and supermarkets. As broker for grass-fed beef raised by 40 producers, Churchill plays the roles of animator, trainer, friend, and aggregator. He has placed Thousand Hills beef into quality restaurants such as Corner Table, as well as Twin City coops, Kowalski's, and the Fresh & Natural chain.

A rising young upstart in the Twin Cities market, the business is built upon Churchill's realization, when he worked for nearby Lorentz Meats (see below), that a gap in the market limited the potential for locally raised beef to flourish. A medium-sized processing plant like Lorentz would have difficulty handling small lots of beef from specialty producers, unless someone aggregated the shipments up to a volume that would make it economical for the plant to reserve time for their shipment. Churchill decided to fill that gap himself, motivated in large part because scientific evidence suggests that grass-fed beef is healthier for the animals, and healthier for consumers, than corn-fed beef.

Working in collaboration with his former employer, Mike Lorentz, as well as Thousand Hills sales representative Todd Lein, Churchill staked out a unique product that was easy to differentiate. Selling a combination of primal cuts (such as halves or quarters of a carcass) and plastic vacuum-wrapped cuts for the grocery case, the firm sends its sole truck directly to some clients, and also to other distributors who carry their products to its ultimate consumers.

### **Lorentz Meats (Cannon Falls)**

A medium-sized independent meat processing business in Cannon Falls, Lorentz Meats is a surprisingly beneficial anomaly. The business arose out of a family butcher shop which Mike and Rob Lorentz took over from their parents in 1997. In some ways one might think this could happen in any small town. Yet good timing, a great location, and a rare business acumen have vaulted them into national recognition as pioneers in building a new approach to processing and marketing meat. Mike Lorentz also gets hired by producers across the nation who are hoping to build more local processing capacity. Mostly, he reminds them to be cautious.

Mike's experience carries considerable weight: Lorentz Meats processes a majority of the organic meat distributed by Organic Valley in the region sells house-label sausages as far away as Los Angeles and New York; performs considerable specialty processing of elk, bison, deer, and other meats for local producers; runs a lucrative custom-processing business; and helped to spawn Thousand Hills Cattle Company. Mike was also active in helping launch a regional investment fund in Southeast Minnesota, the Hiawatha Fund.

Lorentz Meats flourishes as a niche producer amidst a market of low-cost commodity production. Typical cost for a large-scale processor in the commodity system to process an animal is less than two cents per pound. Lorentz says a firm of his size seldom can get costs below 35 cents per

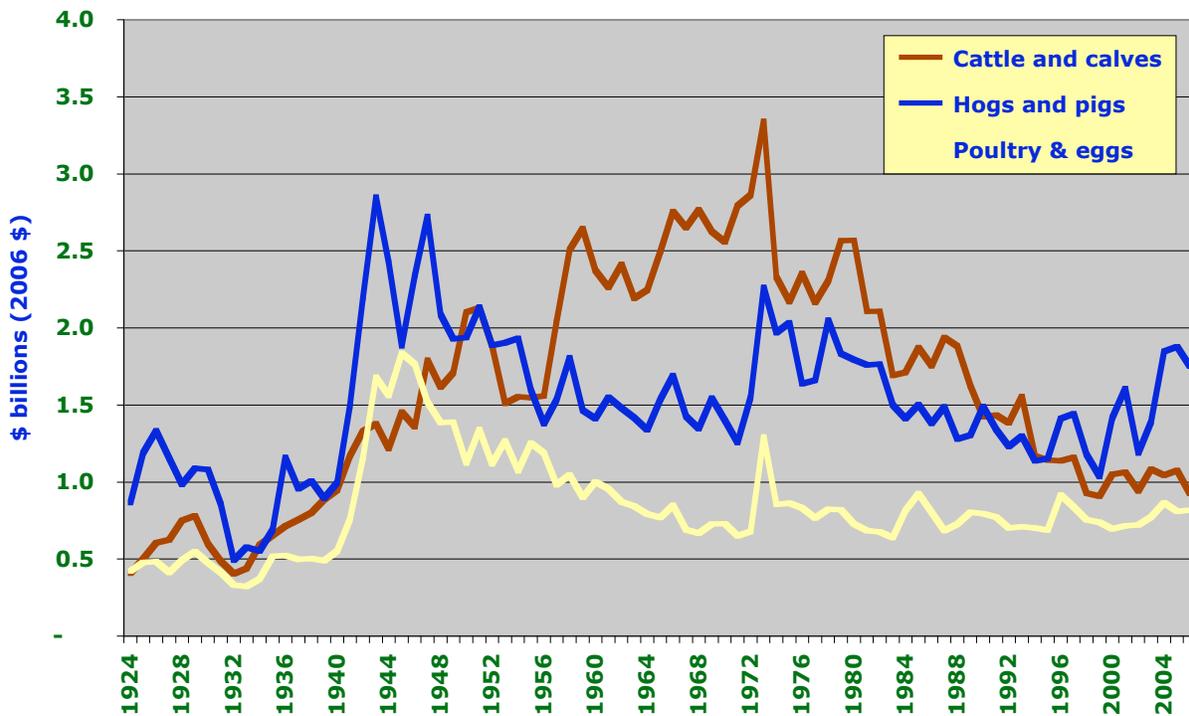
pound. Yet by producing a quality, differentiated product to trusted clients, he can make that work. Capacity is not the issue, Lorentz argues. “We don’t have a lack of productive capacity; we have a lack of imagination.”

### Commodity meats

Nearly forty percent of Minnesota’s 80,000 farms raise livestock, tallying up over \$1.4 billion of cattle sales (with another \$1.5 billion sales of dairy products) and holding an inventory of 2.4 million cattle, 7.6 million hogs, 18 million turkeys and 11 million chickens. Yet cattle sales have steadily declined for over two decades, while hog sales have risen in recent years, and poultry sales are level, as the chart below shows.

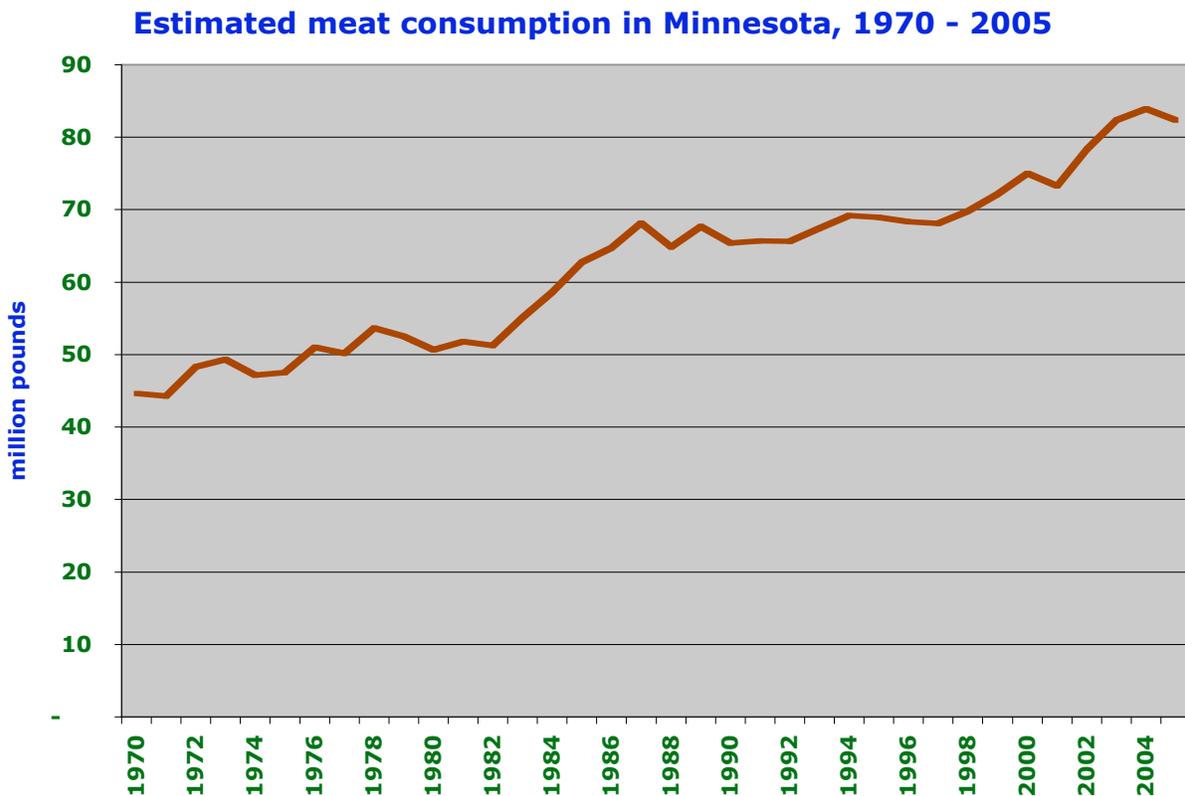
The former South St. Paul stockyards shut its gates for good in 2008. Most state farmers ship their animals to distant processing plants — the meats may return to grocers in Minnesota as chilled cardboard boxes of cut beef or pork. The Wisconsin sausage firm Johnsonville has said that in their peak season, it purchases 80 percent of the total pork output of Minnesota and Wisconsin. This means much of the wealth produced from Minnesota meat production is earned elsewhere. Yet meat processing industry in Minnesota is a significant one. Minnesota’s Department of Employment and Economic Development (DEED) lists 141 meat processing firms in the state, which hire 15,500 employees, and pay \$537 million in payroll.

**Sales of selected animals & livestock products  
by Minnesota farmers, 1924 - 2006**



Source: USDA Economic Research Service. Note that data have been adjusted for inflation by setting all values in 2006 dollars.

With the onset of industrial techniques, cost reductions have been realized, perhaps at some expense in terms of environmental externalities. The declining margins per animal are associated with concentration of the feeding and processing industry. The top four feedlots in the nation (Smithfield/ContiBeef, Cactus Feeders, Cargill's Caprock Cattle Feeders, and Friona Industries) hold a total of 1.9 million livestock. The four largest meat packers own 84 percent of the daily slaughter capacity in the U.S., which, University of Missouri studies show, raises the eventual retail prices paid by the consumer. These four packers, Tyson, Cargill, Swift & Co., and National Beef Packing, together have the capacity to process 94,000 cattle per day. Pork packing is less concentrated, with the top four processors (Smithfield Foods, Tyson, Swift & Co., and Cargill) owning plants capable of processing 257,000 animals per day — 66 percent of the nation's packing capacity. Four broiler-chicken firms own 58 percent of production (Pilgrim's Pride<sup>5</sup>, Tyson, Perdue, and Sanderson Farms), while four turkey processors (Butterball, Hormel/Jennie-O, Cargill and Sara Lee) own 55% of turkey production.



Source: USDA. This data is based on domestic disappearance data, and may overstate the amount consumed by individual consumers.

It is difficult to reconcile the rising meat consumption in Minnesota with declining farm sales. This appears to be due to both displacement of animals to larger operations out of state, declining farm numbers, and lower price margins.

## APPLES

### **Pepin Heights Orchard (Lake City)**

From the Pepin Heights orchards overlooking the Mississippi River valley, Dennis Courtier has become a pioneer in the national apple industry. For over 25 years, Courtier and his associates have been innovators in value-added processing and marketing. Pepin Heights pioneered a sparkling cider product that is now almost ubiquitous in the region. The orchard worked with Food Alliance Minnesota and the University of Minnesota's Experiment in Rural Cooperation to ship Haralson apples to Lunds & Byerly's supermarkets for use in baking premium pies. Pepin Heights has also been able to make a small gain even from its competitors' trade, by packing and shipping apples from Nova Scotia, Quebec, Washington State, and Michigan for resale in locales as near to the producers as possible. The firm sells to major brokers across the country, and ships through most every distribution channel in the Twin Cities, using the orchard's own trucks.

### **Hoch Orchards (La Crescent)**

Traditionally, Southeastern Minnesota has been the center of apple production in the state. While many of these family-run, small orchards have begun to disappear for lack of a younger generation that wanted to maintain the operation, or because of the complexity of making a small farm work, a few orchards have innovated successfully to preserve their family business. One such orchard is Hoch Orchards. Harry and Jackie Hoch took over an 80 acre plot of orchards, woodlands, and fallow fields his father had bought in the 1950s to run a small orchard. They now produce dozens of varieties of apples, plums, berries, farm-pressed cider and fruit preserves, primarily for sale in the region's cooperative stores. It is through such value-added products, Hoch believes, that his farm's future will be assured.

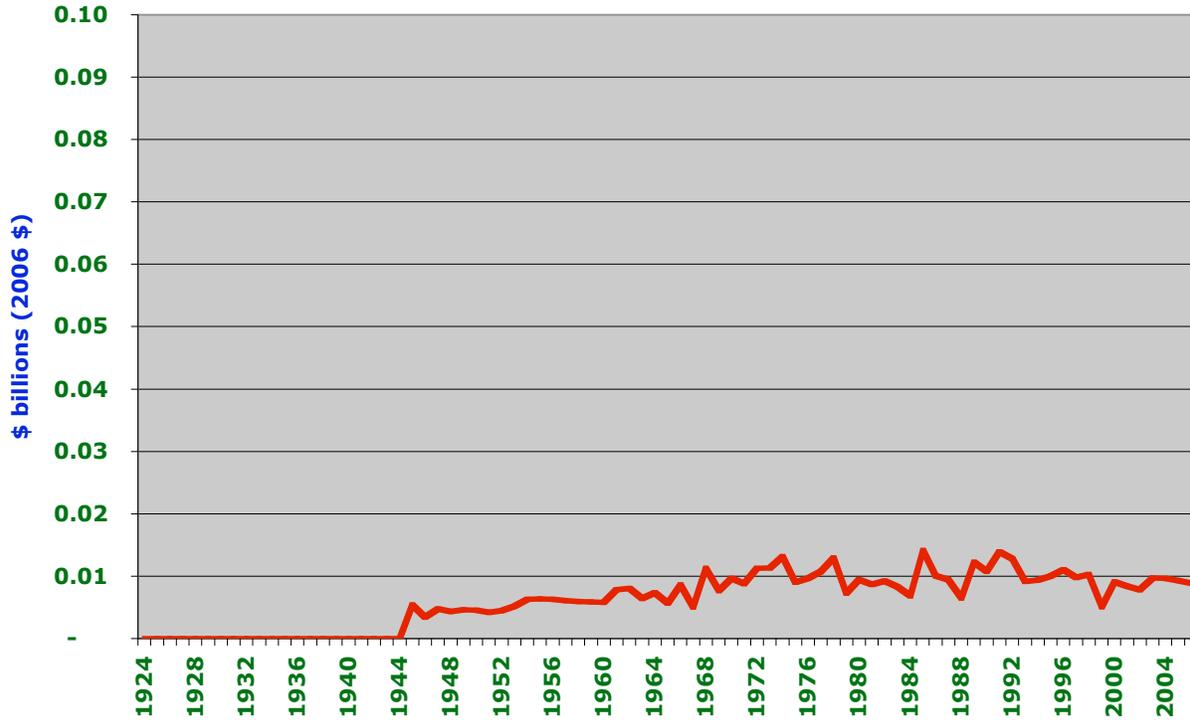
The orchard owns a truck for distributing their products to Twin City coops, and shares trucking with nearby farmers when it makes sense to do. Yet he also makes a point of staying in regular communication with his Twin Cities customers to ensure they are satisfied.

### **Commodity Apples**

Apples are the most fundamental of Minnesota's fruit crops. The only fruit to appear on the list of the state's top 25 farm products, apples are an \$11 million industry. Nearly 75% of the farms in the state that raise fruit produce apples — yet this is only 488 farms, in a state that hosted 76,329 commercial apple farms in 1930. Apples are produced in 78 of the state's 87 counties (90%), yet in 1930 there was not a single county in Minnesota that did not produce apples commercially. In that year, as the Great Depression took root, 905,409 bushels of apples were marketed.

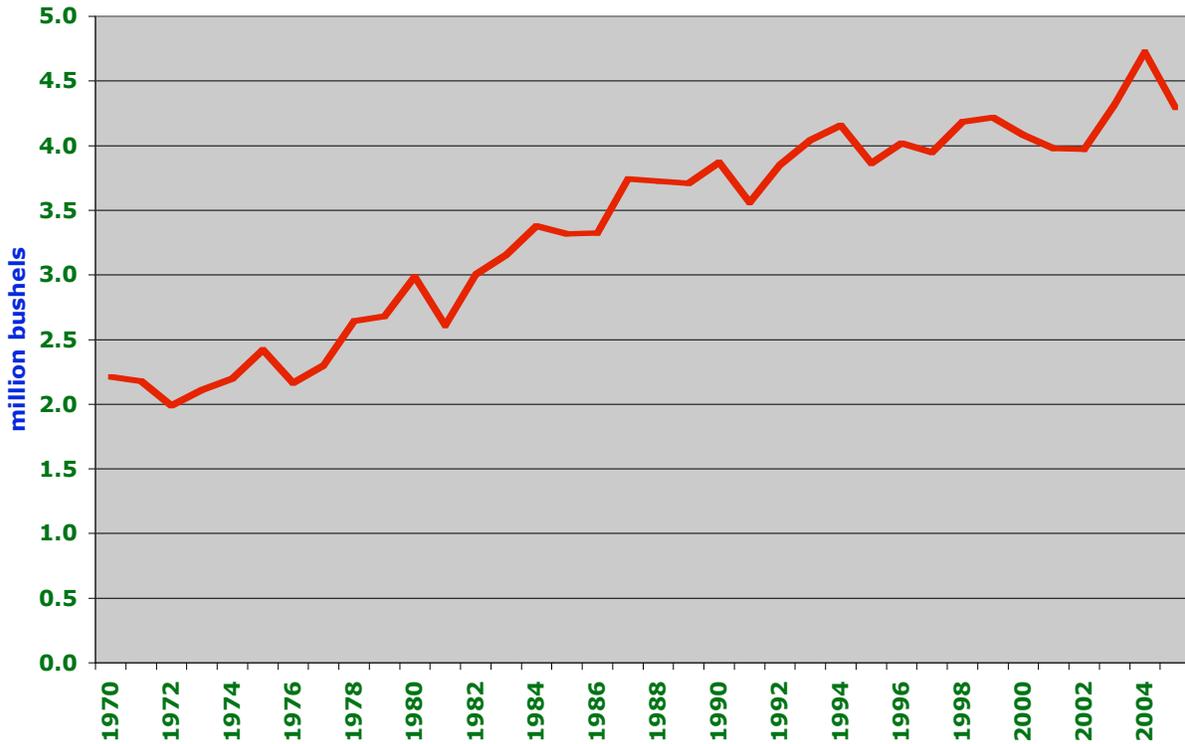
Currently, however, apple production in Minnesota is only about 620,000 bushels.<sup>6</sup> Not only does the state produce fewer apples despite doubling its population; it was able to produce two-thirds or more of its consumer demand in 1930, while it now produces only 14 percent. Today, the state ranks 24<sup>th</sup> in the U.S. in apple production — despite the fact that Minnesota is an important center of apple varietal research, a leading farm state, with specialty apples commanding rising prices.

### Apple sales by Minnesota farmers, 1924 - 2006



Source: USDA Economic Research Service. Note that dollars have been adjusted for inflation. No apple sales data was reported for years prior to 1945. Scale of this chart is considerably more fine-grain than in the previous charts, since apple sales are relatively small at about \$9 million. Dennis Courtier of Pepin Heights says these ERS apple sales figures are low.

### Estimated apple consumption in Minnesota, 1970 - 2005



*Source: USDA. This data is based on domestic disappearance data, and may overstate the amount consumed by individual consumers. Rising consumption since 1987 is primarily due to population increases, since per capita consumption has been relatively constant since that year.*

Once again, rising apple consumption has not been rewarded with rising income to apple growers.

### III. ECONOMIC CONDITIONS

The above snapshots highlight the intricacy of Minnesota's food system. Indeed, it would be more accurate to state that Minnesota has multiple, overlapping food *systems* — that interact with local, regional, national and global systems encompassing ecology, climate, geography, populations, commerce, finance, trade, and a multitude of other concerns. To draw a boundary around these, and to call this the “Minnesota food system,” is fairly arbitrary.

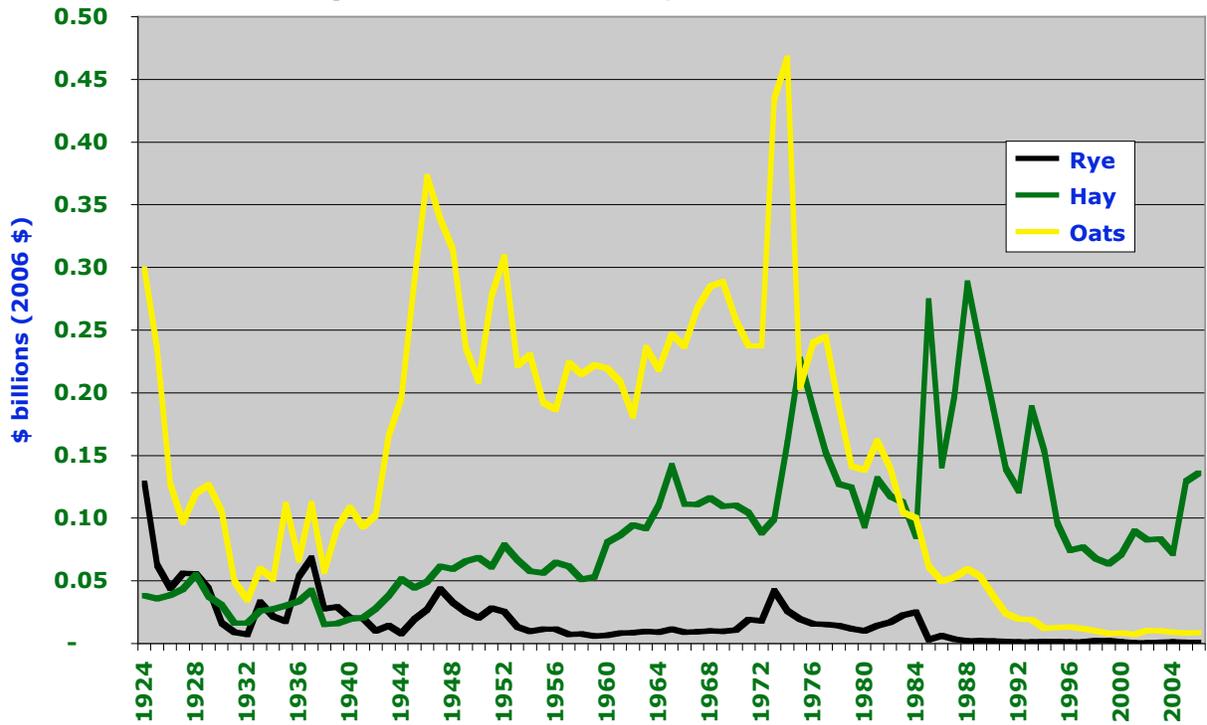
Yet this choice of boundaries does allow us to simplify our discussion of food in Minnesota. Moreover, much of the data useful to creating a road map of food systems is reported at a state level, so this is also a pragmatic choice. We will have reason, later in this paper, to touch upon the broader forces that impact Minnesota — and that Minnesota influences — but for now this treatment will focus upon the state itself. We begin with a small item from history.

#### **Before fossil fuels**

The farm sector in 1930 was quite different than today. Total farm sales were about half of today's levels, after accounting for inflation. Of the 185,255 farms in the state counted by the 1930 agriculture census, 70% raised food for their own family use (this figure may be as low as a few percent today). Four of every five farms raised potatoes. Five percent of crop sales were commercial sales of vegetables or potatoes, compared with three percent today. Corn was a miniscule crop, at three percent of sales, and soybeans were nonexistent (currently a combined 39%). Dairy sales, at \$1.2 billion in 2006 dollars, were just under current levels.

Nearly one-fifth of the state's farmland was devoted to oat production, much of this feeding horses as the prime energy supply for farm production. Although many of these oats were used directly by the farmers raising them to feed their animals, oat sales still totaled \$105 million in 2006 dollars, compared to \$15 million today. Almost one-quarter of the state's acreage was devoted to raising hay or other forage crops, and a far richer diversity of grasses were grown — helping to protect biological diversity, animal health, carbon sequestration, and water quality all at once.

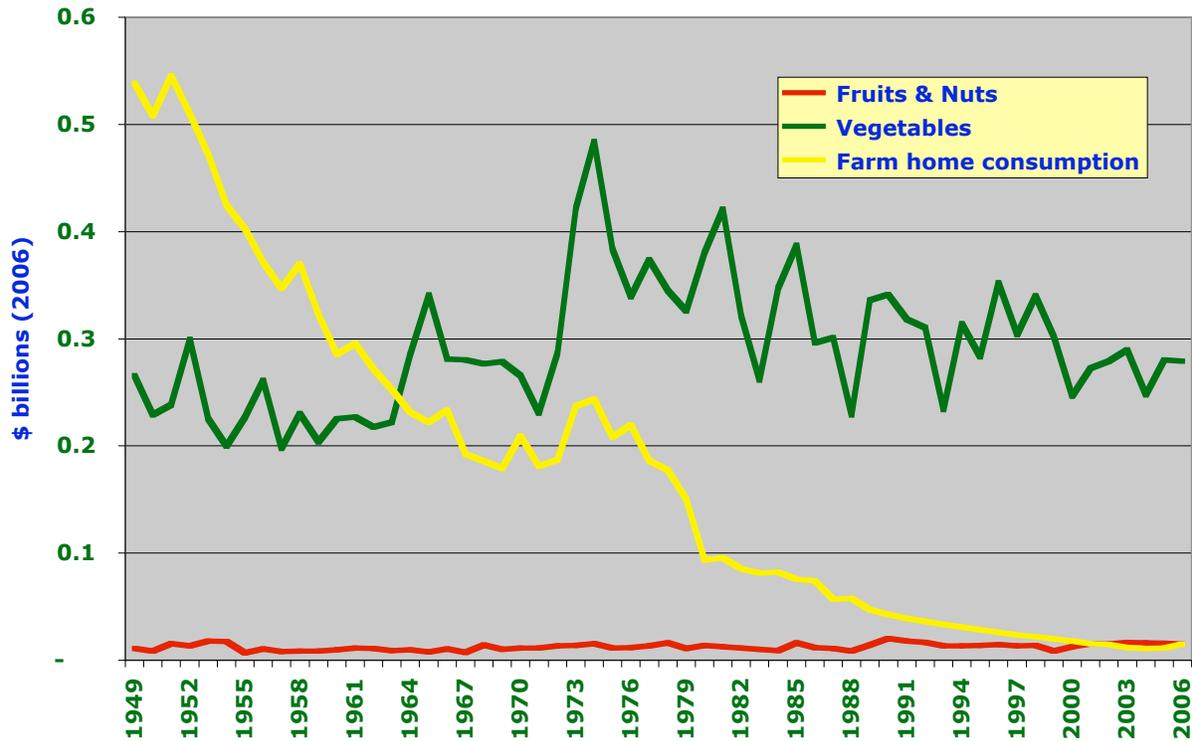
### Sales of selected forage crops by Minnesota farmers, 1924 - 2006



Source: USDA Economic Research Service

Notably, every Minnesota county produced apples, cherries, strawberries, and plums. Raspberries were available in all but one county. All but three offered grapes for sale. Peaches were produced in 69 counties, and pears in 76. This is marked contrast to the notion, popular today, that Minnesota is must necessarily import most of its fruit from far away.

### Value of Minnesota farm products, 1949 - 2006



Source: USDA / Economic Research Service

As the chart above shows, one of the major shifts of this era was the decline in farm families’ interests in feeding themselves. In 1949, farm families raising products for their own consumption was an important industry: at five percent of state farm production, and \$540 million of sales (in 2006 dollars) it rivaled the oil-crop industry, its value was double that of commercial vegetable production. Further, the amount of product reserved for farm home use equaled one-third of the state’s poultry sales, or one-quarter of dairy sales. Amazingly, were home consumption still practiced at the same level today as in 1949, its value would be greater than the seventh-largest food commodity produced in Minnesota — sugar beets.

By 1963, as the mainstream economic discussion focused on encouraging farm families to produce for export, home consumption fell below vegetable sales for the first time. By 1980, farm families had clearly abandoned efforts to feed themselves, preferring to buy from the commercial market. Today, home consumption by farmers totals only \$15 million (0.1% of farm sales) — still larger than the state’s apple industry, yet less than the \$23 million of products sold directly by farm families to consumers.

Reshaping commodity production for a stronger focus on export markets meant that, for farmers, the needs of others would take precedence over their own food needs, or local food trade. With efficiency increasingly being cast as more efficient mobility of food, attention on stable, healthy food systems waned even more. Indeed, most consumers were pleased with the rising food choices available to them. Settling into peacetime and prosperity, neither consumers nor farmers paid close

attention to the ways in which this focus on the efficiency of the firm and mobility of food might undermine the quality of food itself — nor was it clear how this distance separated consumers from producers.

The dilemmas inherent in this expansionist era typically went unrecognized. As farmers left the land for suburban homes and manufacturing or service jobs, more and more of the farms with choice soil, near urban consumers, were turned into housing developments. Moreover, as private cars became the vehicle of choice and supermarkets gained prominence in food marketing, the growth of food consumption became disconnected from farms. Farmers produced more and more commodities to expanding markets, yet in so doing they accumulated more and more debt.

### **Current Conditions**

One entry point into understanding the state's food system today is simply to total up how much money residents spend for food in a year. The easiest measure of this is provided by the Bureau of Labor Statistics, which surveys households every year to get detailed counts on what each household buys in a year. This is the standard data set from which marketing studies are run. BLS also has a fine reputation for remaining relatively neutral as a data source.

The Consumer Expenditure Survey shows that Minnesotans spent about \$12 billion in 2007 buying food; \$6.8 billion to eat at home and \$5.3 billion to eat out. Of this amount, low-income residents, who make up one-fifth of the state's population, spend about \$1.7 billion each year buying food. Eighteen percent of this, or \$303 million, is food stamp income. Additional millions are given as WIC coupons.

Food purchased for home use by all Minnesota consumers in 2007 breaks down into the following categories:

	<b>\$ millions</b>
Meats, poultry, fish, & eggs	\$ 1,448
Fruits and vegetables	\$ 1,144
Cereals & bakery products	\$ 930
Dairy products	\$ 786
Other	\$ 2,506

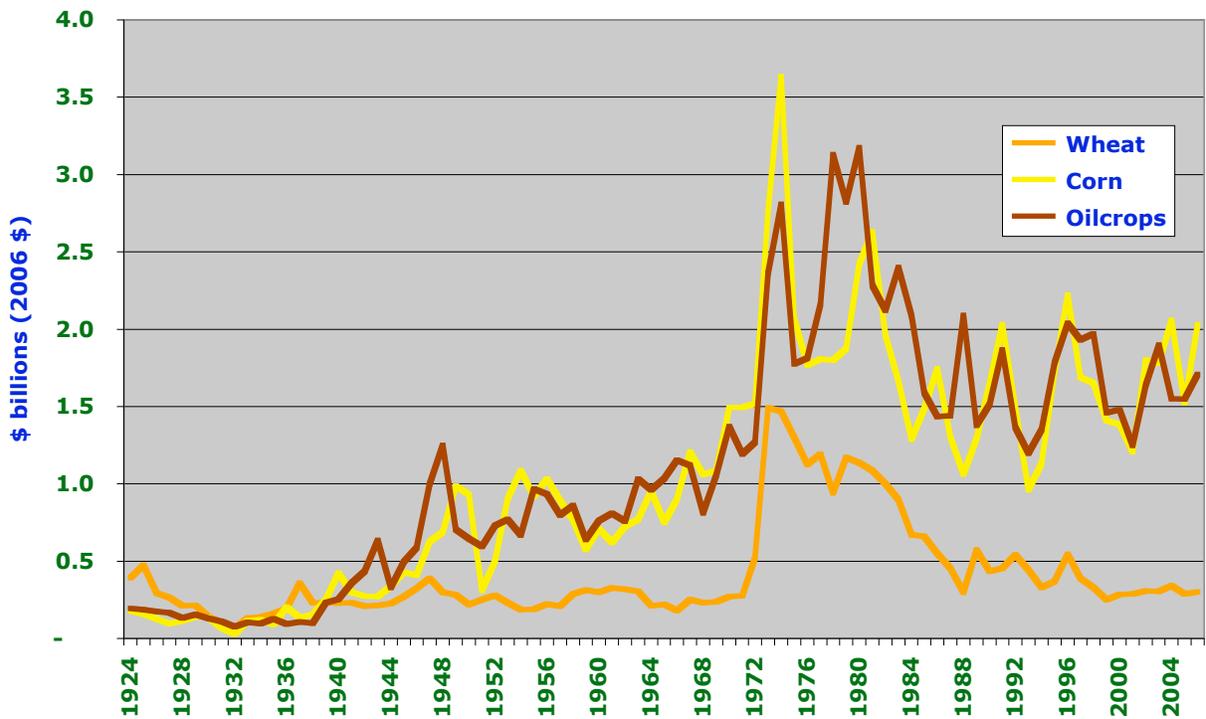
This household data does not cover food purchases by nonresidents, nor meals provided by institutions to their employees, students or clients. Data that suggests this broader food market will be cited below. First, however, let's turn to the situation faced by Minnesota's farmers.

The seventh largest farm state in the U.S. by sales (after California, Texas, Iowa, Nebraska and Kansas), Minnesota has an ideal growing climate for a variety of farm products. It holds an enviable position in global trade due to its financial prowess and access to transportation. The harsh winters do limit the growing season, and prevent many delicate crops from being commercially viable, yet these same winters also reduce the number of potential pests, since many pathogens and insects do not survive the cold months. Most vegetables and animals can be raised here, along with many grains and fruits.

Grain is the strongest engine driving the farm and food economy of the state. Minnesota farmers sold \$5 billion of corn and soybeans in 2007 — the major cash crops that serve as livestock feed,

export product, wealth generator, and industrial chemical resource all at once. Grains are also the core reason two of Minnesota's top three manufacturing firms are as large as they are. Cargill, at \$73 billion in global sales in 2006, tops the list (Cargill also has extensive interests in animal sales, farm chemicals, and other products). CHS (formerly Central Harvest States), which originated as a cluster of farmer-owned cooperatives, is also a major player, with \$12 billion of annual sales. Other major food firms headquartered in Minnesota include General Mills (\$11 billion), Land O'Lakes (\$7.6 billion), Hormel Foods (\$5.4 billion), PepsiAmericas (\$3.7 billion), and Schwan Foods (\$3.4 billion). All told, \$114 billion of revenue is produced by these seven food firms, all members of the state's top 20 manufacturing firms headquartered in the state. This is two-thirds of the leading firms' revenue.

### Sales of selected grains & oilcrops by Minnesota farmers, 1924 - 2006



Source: USDA Economic Research Service

Minnesota's 80,000 farms play a critical role in the state's food industry, of course. Yet their importance is not primarily to produce food for Minnesotans, since direct sales are small. Considerable food does get funneled from state farms through state distributors or processors to local retail stores, but this channel is sparsely measured. Currently, experts estimate (conservatively) that 90% of the food purchased by Minnesotans is produced out of state. For the seventh-largest farm state in the nation, this is a remarkable reality.

Even for farms selling into local value chains, however, their primary relationship to the market is clear: they produce commodities. Essentially, commodities are raw materials destined for further industrial processing — even in the case of milk or animals which end up directly in our food

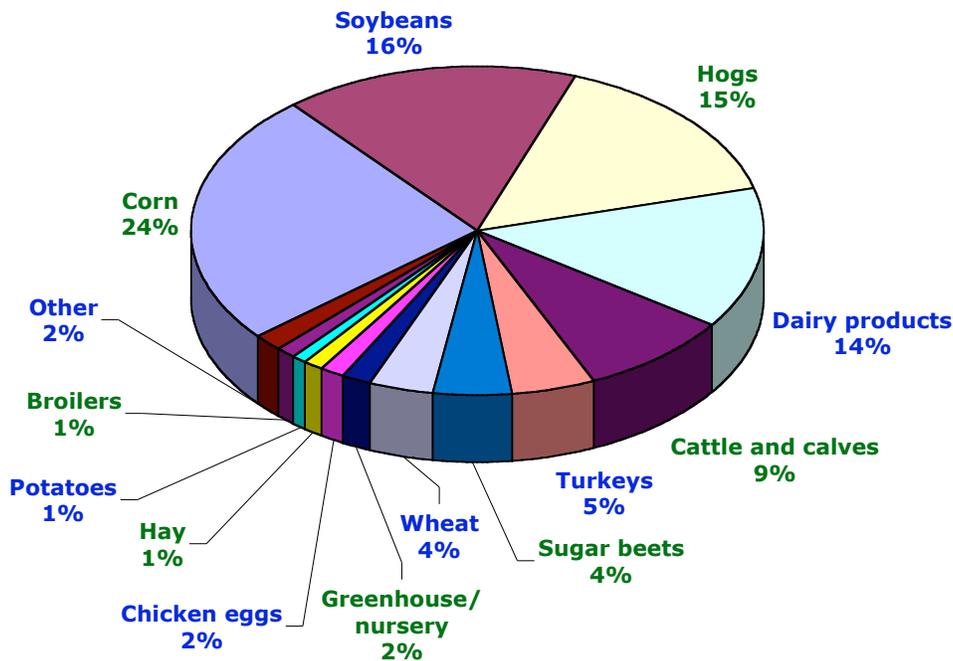
supply, processing is required to create a consumer-ready product. This tends to separate farmers from the ultimate consumers of their products.

Given such a separation, farmers' supply and consumers' demand cannot balance, since they are not in conversation with each other. Farmers respond to market signals from processors or brokers, not from the ultimate consumers. These intermediaries, in turn, respond to market signals from largest distributors, who themselves trade in a global wholesale market.

Many farmers focus on technical aspects of commodity production, without considering deeply the actual food people eat. As one Iowa farmer said, incredulously, in a meeting of a local foods effort there: "You mean if I raised food for people, someone would buy it?" This in a country that prides itself on "feeding the world."

Yet make no mistake, this is an impressively productive economic engine. All told, state farmers sell \$13 billion of crops and livestock. This generates considerable business activity both inside and outside of the state. The USDA Economic Research Service estimates that farming in Minnesota alone adds an additional net of \$4.3 billion to the rest of the national economy.

The chart below shows the sales of Minnesota farm products in 2007:



Source: USDA Economic Research Service

Amounting to 40% of all farm sales, the state's largest single industry is its corn and soybean rotation (each is typically raised sequentially with the other). These primarily serve as feed grains for the livestock industry. Indeed, Minnesota ranks fourth in the nation in grain sales. It is both the

nation's third-largest exporter of soybeans and products (\$830 million in 2006) and fourth-largest producer of feed grains and products (\$827 million in 2006).

Meat and animal products are also important products. When milk sales are combined with animal sales, 43% of state farm sales is covered. Minnesota serves as the largest turkey producer in the nation, with \$555 million of sales (15% of U.S. sales in 2007). It is also an important hog producer, number three in the nation, with \$2.1 billion in hog sales, one-eighth of the national figure. Minnesota is the sixth-largest dairy state in the nation, with \$1.5 billion of sales, and ranks as eleventh-largest cattle producer, with \$1.4 billion in sales. Live animals and meat amount to the state's third most significant export product, with \$336 million in exports (seventh in the U.S.).

The chart below list Economic Research Service tallies of food product sales by Minnesota farmers for 2007. It is the same data as in the pie chart above, yet presented here as a list, with accompanying sales figures:

### Minnesota farm product sales 2007

	<b>\$ millions</b>
1 Corn	3,055
2 Soybeans	2,039
3 Hogs	1,878
4 Dairy products	1,692
5 Cattle and calves	1,067
6 Turkeys	555
7 Sugar beets	544
8 Wheat	442
9 Greenhouse/nursery	200
10 Chicken eggs	193
11 Hay	128
12 Potatoes	120
13 Broilers	104
14 Corn, sweet	66
15 Dry beans	61
16 Sunflower	31
17 Sheep and lambs	15
18 Oats	15
19 Barley	12
20 Apples	11
21 Honey	9

**Note:** Green peas, rye, carrots, and snap beans are also listed among the top 25 farm products in Minnesota, but sales data have been withheld by ERS to preserve confidentiality. Note that apple sales figures are considered low by some producers.

*Source: USDA Economic Research Service*

This table shows that 91% of Minnesota's farm sales derive from the feeding and production of animals. The \$5.5 billion of animal sales are typically sold to processors outside of the state. Another \$5 billion of corn, soybeans and hay production is largely sold for animal feed, although corn ethanol has begun to offer a competing use. However, as we will see later, returns to livestock and milk producers have been falling steadily for over two decades, a troubling sign in such an important industry.

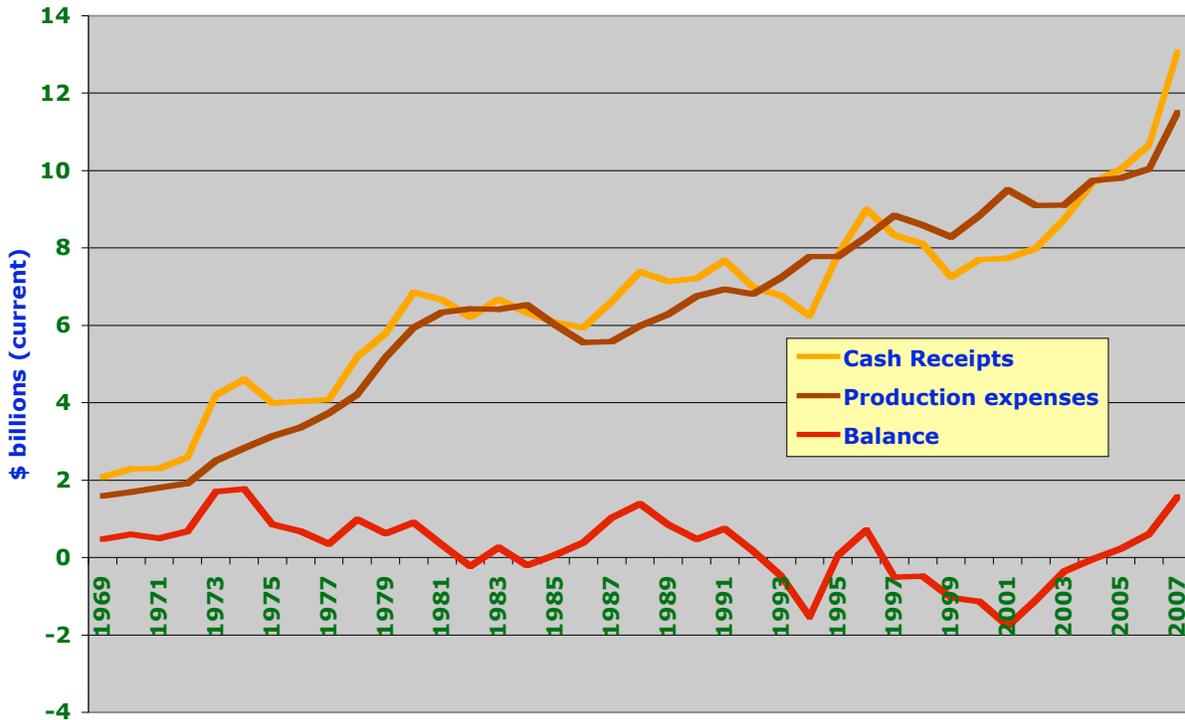
Minnesota also produces other significant products. The state ranks first in sugar beet production, with 34% of all sugar beets in the nation, valued at \$544 million. Another \$442 million of wheat is raised, of which \$241 million is exported (Minnesota is the eighth largest exporter of wheat in the U.S.) State farmers sell \$193 million of eggs, while potatoes are a \$120 million industry. Another \$104 million of broiler chickens are sold.

Vegetables are a \$276 million industry, including potatoes, sweet corn, snap beans, green peas, edible beans, and carrots. Much of this produced for processing or shipping, so it is not specifically targeted for state consumers. The only fruit on the list of top products is apples, with \$11 million in sales.

Importantly, as noted above, direct food sales were only 0.3% of farm sales, this \$23 million industry would rank as the 17<sup>th</sup> most important product in the state on this table. This suggests the significance of direct farmer-to-consumer connections.

Overall, economic conditions for the farmers that produce this abundance have been shaky. To examine this, regional income studies from the Bureau of Economic Analysis were consulted. This data shows the cash income received by all farmers in the state each year since 1969, as well as their costs of production.

### Farm Production Balance in Minnesota, 1969-2007



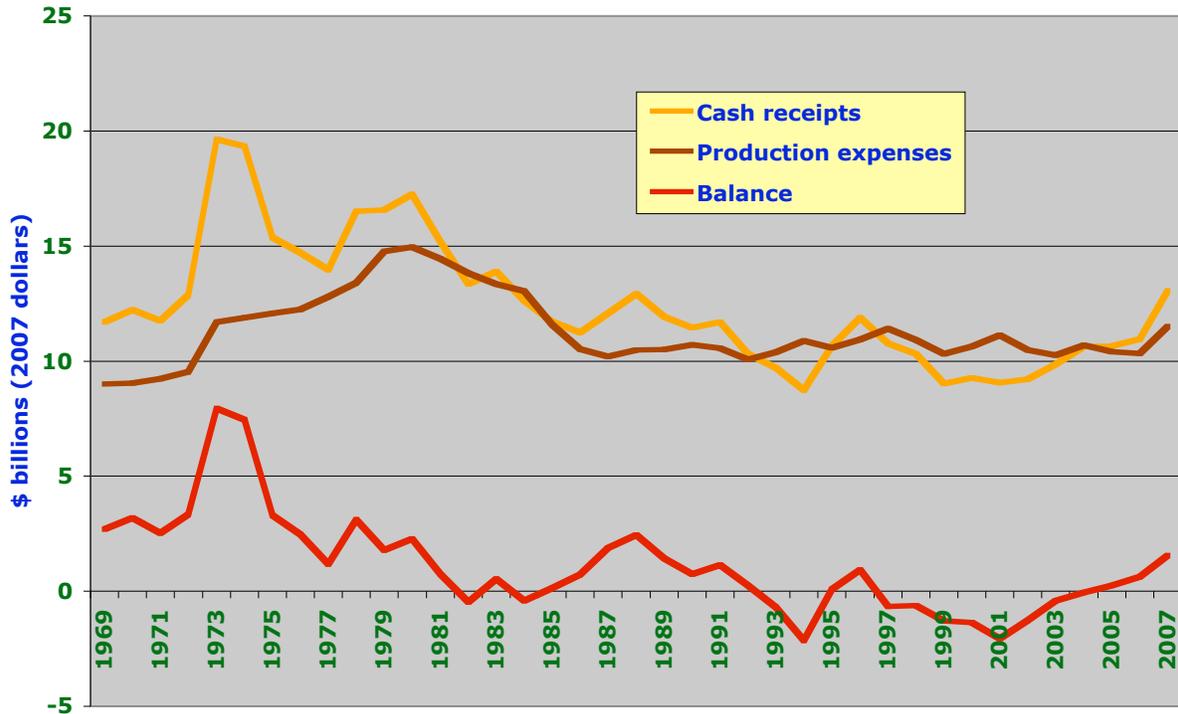
Source: Bureau of Economic Analysis. The data above is in current dollars for each year shown; that is, not adjusted for inflation.

This simple measure of the state’s farm economy shows rising trends in crop and livestock income over the past 38 years, as testament to both rising production and growing markets. While there is considerable inconsistency of income, troublesome to growers who may want predictability in their farm operations, the steady growth is impressive.

Yet when costs are subtracted from cash receipts to show the net balance from farm production, the trends are quite distressing. Even a quick glance at the chart shows that farm income from producing crops and livestock has been falling steadily since 1974, and has been negative most years since 1994.

Yet this chart is only hints at a deeper story that is even more significant. That is because the value of the U.S. dollar today is only one-fifth of its 1969 value, when these charts were started. To a farm family, it does not matter simply how much money one earns, but also how far that income takes them. To answer the question of farmer spending power, the chart above was adjusted for cost-of-living increases. That adjusted data is shown below.

### Farm Production Balance in Minnesota, 1969-2007



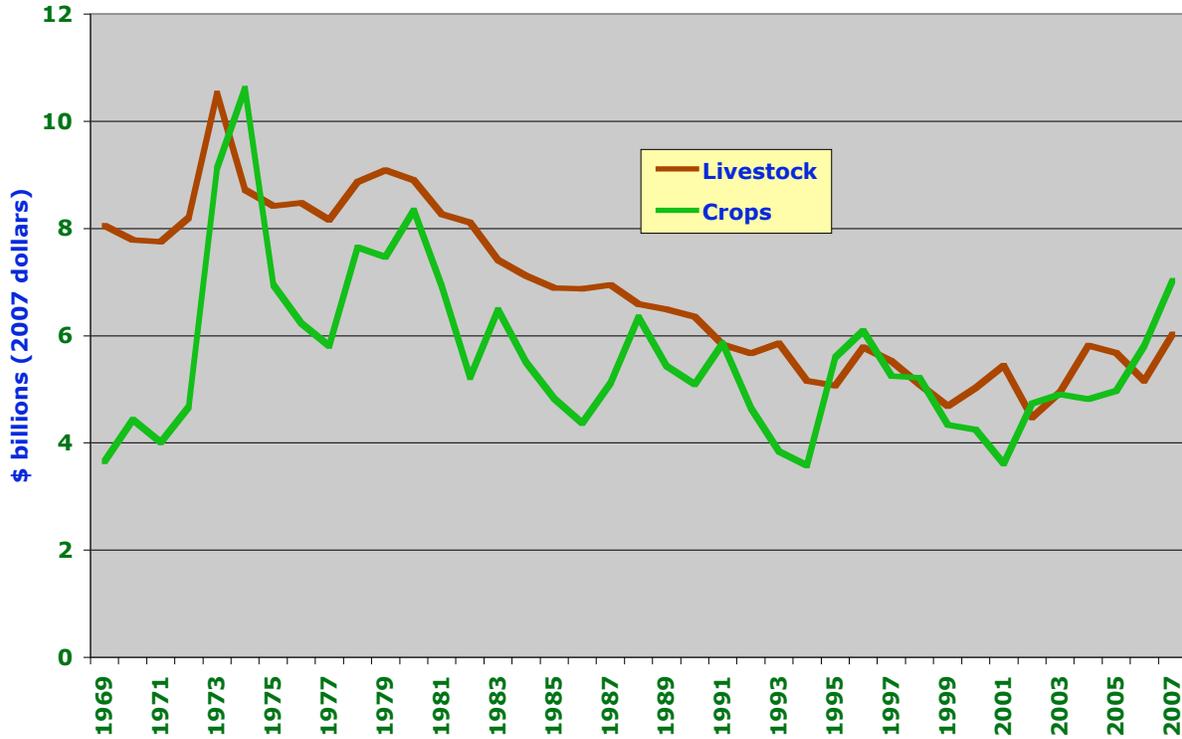
Source: Bureau of Economic Analysis. Note that dollar values have been adjusted for inflation by showing each in 2007 dollars.

This inflation-adjusted data tells a markedly different story. One look at the production expenses line shows that farmers have kept the real costs of farming as low as they could, holding them steady since 1987. This is evidence that farmers are exceptionally good managers. Yet the market fails to reward farmers for this frugality, since cash receipts have fallen dramatically since 1974, and steadily since 1980. Truly, with income declining at such a rate, it is clear that if farmers could figure out a way to reduce their costs even more, they would have already done so. This suggests that the infrastructure they use — including the equipment they rely upon, the financial infrastructure that lends them money, and the distribution system itself — is too expensive given the current pricing of raw farm commodities. Even the two good years, 1973-1974, fostered a frenzy of new borrowing as farms expanded for what federal officials said would be “lasting” export markets. Saddled with debts they could not pay as commodity prices fell, farmers found themselves not on the road to lasting prosperity, but to the national farm-debt crisis of the mid-1980s. The fact that good years later turned into bad indicates that the structure of the farm production economy is systematically incapable of rewarding farmers for their labors.

Minnesota farmers earned \$1.1 billion less by farming in 2007 than they did in 1969 (in 2007 dollars), the chart shows. On average, over the ten-year period 1998-2007, farmers earned \$10.2 billion each year selling their crops and livestock, while spending a total of \$10.7 billion to produce these products. This amounts to a total loss of more than \$4.6 billion since 1998 in the farm production sector alone, an average loss of \$465 million per year (in 2007 dollars).

Most of these production losses are connected to the corn/soybean rotation, and animal production — the state’s most important and productive farm industries. Most notably, as the chart below shows, cash receipts earned by selling livestock have fallen steadily since 1979, while cash receipts from crop sales (with the exception of two recent years in which prices were fueled by commodity speculation) are essentially at the same level today they were 37 years ago — despite the fact that Minnesota farmers have doubled productivity.

### Crop and livestock sales in Minnesota, 1969-2007

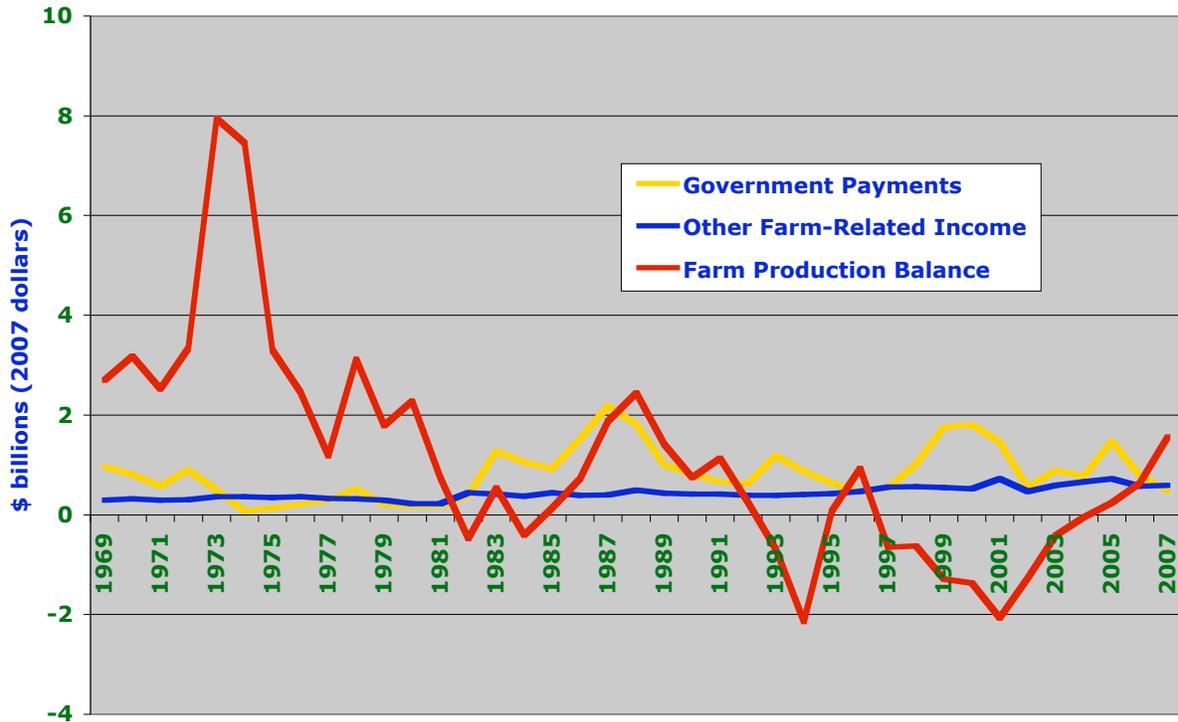


Source: Bureau of Economic Analysis

It is important to note that the above data does not include farm subsidies, nor does it include off-farm income earned by family members. Nevertheless, even after federal subsidies are taken into account, 38% of all farms in the state reported a net loss in the most recent agricultural census. This may reflect a tendency to report a net loss for tax purposes, or may be related to investors who invest in farms precisely to garner a tax loss — yet it is still a chilling statistic in an important farm state.

The chart below shows farm income by type, including farm subsidies. It is immediately clear that federal subsidies do not always compensate for farm production losses. The most reliable form of income is farm-related income: confirmation that renting out one’s land has become more lucrative than actually farming.

### Minnesota farm income by type, 1969-2007



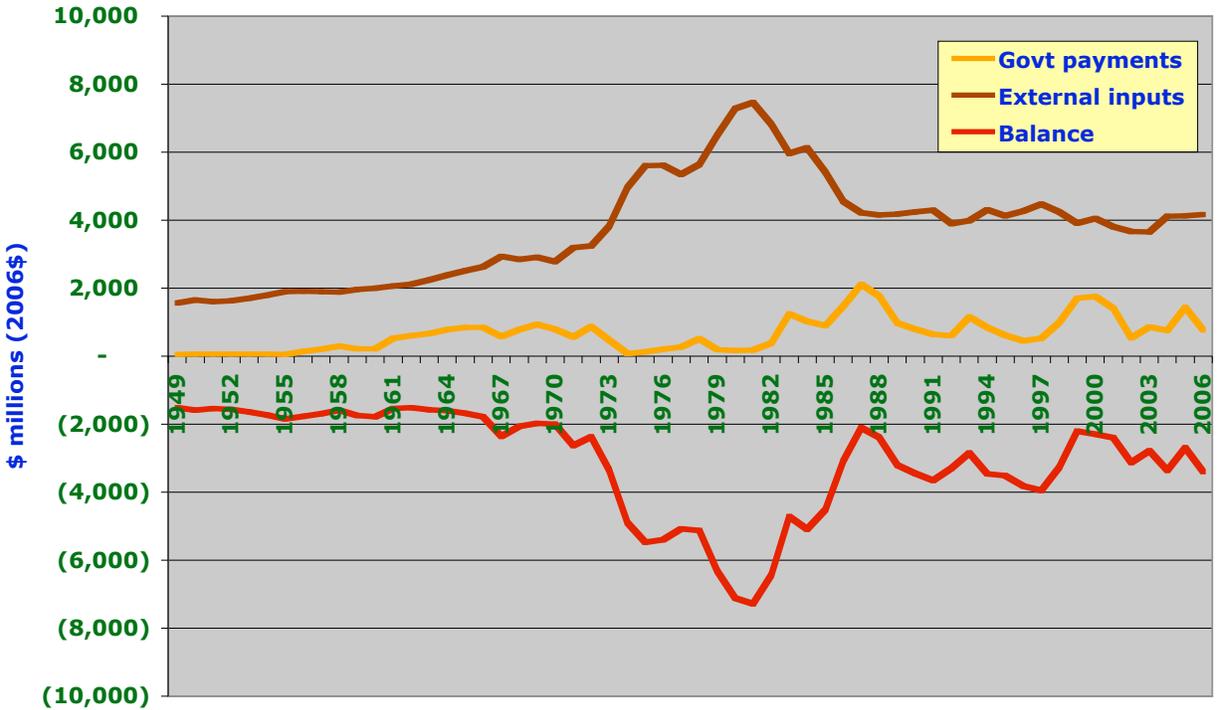
Source: Bureau of Economic Analysis Note: the farm production balance line looks steeper in this chart due to having a different scale, but is the same line depicted on the previous chart.

It is also clear that federal subsidies are not effective policy, if their goal is to assist farmers and their rural communities to earn adequate income from farming. Despite increased subsidy payments since 1983, farm income continues to slide. This raises the issue: what purpose do subsidies serve? Unfortunately, they appear to serve the function of keeping farmers farming. In a very real sense, they reinforce economic structures that encourage farmers to farm at a loss. Clearly, these are concurrently subsidies to lenders, input dealers, commodity buyers, and consumers, and simultaneously keep commodity prices low.

Two of the main impacts of subsidies are that they make it possible for farmers to pay interest on loans, and continue to purchase farm inputs, while selling commodities below the cost of production. In fact, nationally, farmers have spent \$600 billion *more* paying interest to lenders (money which tends to leave the farm sector) *than they have received in subsidies*. In a very real sense, farmers subsidize the mainstream economy, far more than they are supported by federal payments.

This has dire consequences for the state's economy. Given that many of the primary farm inputs are sourced outside of Minnesota, continuing to buy these inputs means funneling billions away from the state each year. All told, since 1949, Minnesota farmers have spent \$180 billion more purchasing external farm inputs (machinery, fuel and oil, chemicals, and interest payments) than they have received from federal subsidies — as is shown below.

### Minnesota — Balance of federal payments with external farm input costs, 1949 - 2006



Source: USDA Economic Research Service

It should be noted that many observers, noticing the rapidly rising prices for wheat in 2008 (as this report was written the price of wheat futures briefly hit \$25 per bushel), corn, and soybeans, argue that farm losses are behind us as the ethanol industry begins to provide lasting domestic markets for farmers. From an economic standpoint, one wishes this were true — yet one look at the price spike of 1973 is enough to remind us that high prices can be very transient. Since the U.S. does not have policies in place that would keep prices high, a cautious observer would wait to see if higher prices do endure. And it would be important not to make long-term obligations based on a hope that prices will stay high — witness the debt crisis farmers endured in the 1980s.

There are still other humbling indicators that suggest caution. ERS reports that key input prices doubled or tripled once commodity prices escalated. One bank president I interviewed, who also happens to farm, noted that his input costs rose more than 70% once commodity prices began to increase. He also bemoaned the fact that land prices are now higher than the value he can produce on the farm. Several scientific studies have pointed out that ethanol does not have enough energy content to replace oil at the rates our society currently consumes. Air pollution and intense water use pose environmental risks. And already, ethanol plants have closed down because the price of their most important input — corn — has become too steep to allow profitable production. The price spike was caused primarily by investor speculation, not food market signals. Now that this corn price bubble has burst, ethanol's importance as an energy source is still unclear.

Many agricultural economists (Bruce Gardner is a prime example<sup>7</sup>) argue that farmers' personal income is as high as that of urban consumers. This appears to be true, yet only because farm families work off-farm jobs, just like urban consumers do. They must work even more stringently to do so, however, since the family must cover the losses they endure from farm production, in addition to meeting family living expenses.

It has further been argued that America should accept that in our future, our food will be imported because it costs too much to pay for high land values and living wages on American soil. Yet this would come at the cost of greater separation between the farmer and consumer, and would also threaten the food processing industry in our state. Moreover, it would likely lead to higher food costs, greater dependency on fossil fuels, and increasing vulnerability to low-income households.

### **Adding Value to Food**

It is more difficult to compile hard numbers covering the food processing and distribution sectors, since these firms are not required to share data with public bodies to the same extent farmers are. Moreover, available data sets are compiled for differing purposes by each source, so that comparing numbers across sources becomes difficult. For example, Cargill is listed by DEED as a manufacturer, though quite a bit of their income comes from wholesale commodity trading of products they did not manufacture. The U.S. Economic Census is somewhat old, and omits specific firms that are either so small or so large they might be identified in county or state level summaries.

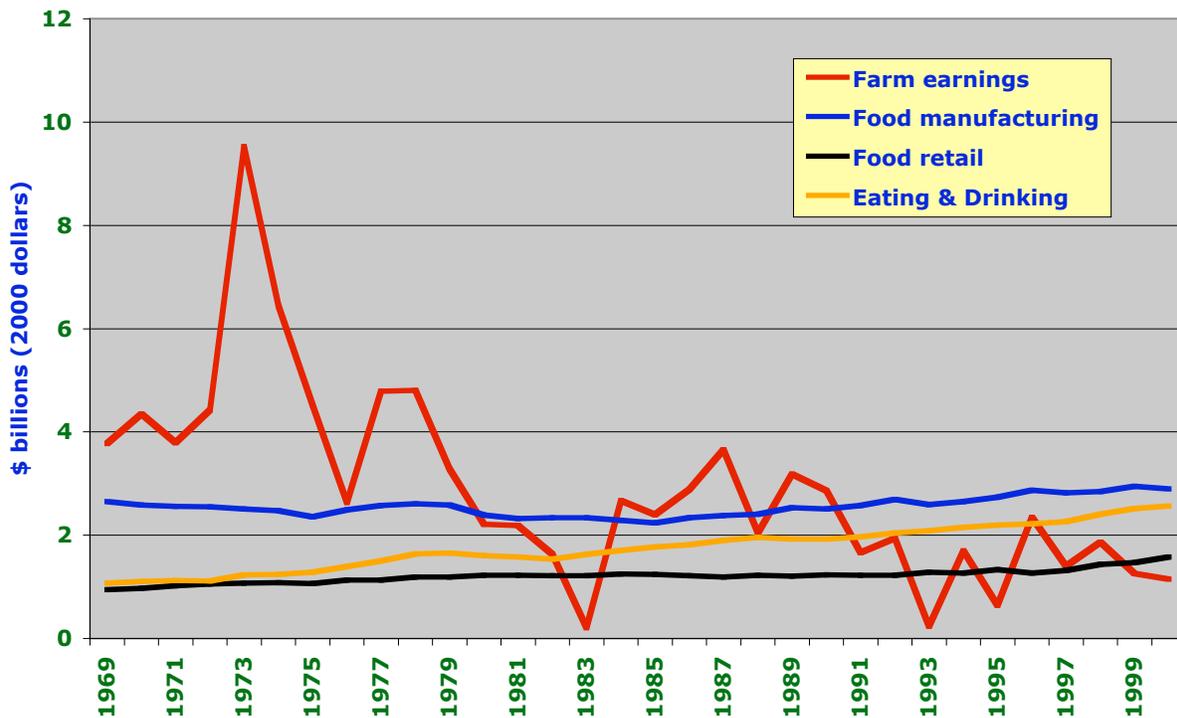
With this in mind, it seems safest to report the summaries of various industry categories as reported by DEED. Unfortunately, these do not include sales revenue. While the Dun and Bradstreet data bases do, their estimates are rounded considerably, and also omit some of the larger firms, so comparisons would be risky. Below is the DEED summary, with Bureau of Economic Analysis (BEA) data about farmers added as a point of comparison:

	Number of firms	Full-time Employees	Total Wages (millions) \$
Farm operators	80,000	101,094	\$ 1,259
Farm production	1,424	14,501	363
Agricultural support industries	348	1,882	52
Food manufacturing	778	42,547	1,600
Beverage manufacturing	53	2,217	100
Food wholesalers	1,119	20,910	1,200
Retail food	2,422	53,691	1,002
Eating and drinking establishments	10,448	179,385	2,262
<b>total industry</b>	<b>16,592</b>	<b>315,133</b>	<b>6,580</b>
<b>total with farms</b>	<b>96,592</b>	<b>416,227</b>	<b>7,839</b>

Source: Minnesota DEED (2006), farmer and farmworker data from Bureau of Economic Analysis. Rather than wages, BEA's "returns to operator" are listed on the top right cell. "Operators" are owners/managers of farms.

Another useful data set is personal income data from the Bureau of Economic Analysis. This is better at showing trends than the one-time data listed above. However, it has the drawback that industry codes were changed in 2000, making it difficult to compare data from before and after that year. Here are BEA's calculations of personal income for 1969-2000:

### Food-related personal income in Minnesota, 1969-2000



Source: Bureau of Economic Analysis

This data shows quite clearly how much farm earnings have fallen compared to earnings in value-added industries that rely upon farmers (perhaps in other states) for their raw material inputs. In the course of the past 37 years, farming has fallen from the most important source of personal income in the state's food sector to the smallest source. Clearly, something keeps the growth of manufacturing, eating and dining, and grocery industries more or less balanced with each other, in a way which farmers, the primary food producers, do not share.

### **Food Manufacturing**

Some of the larger food manufacturing firms in the Twin Cities metro area are also among the largest food corporations in the United States. Although the following list is certainly not exhaustive, it illustrates the diversity of food manufacturing firms in the state. A large number of smaller firms operate in greater Minnesota as well, serving local markets, that cannot all be listed here.

**Food manufacturing firms with offices in Minnesota:** *[The list below is not definitive, nor do these all represent the principal headquarters of each firm.]*

Anheuser-Busch Inc	IBP Foodservice LLC
Archer Daniels Midland Co	Interstate Brands Corp
ADM Milling Co	Keebler Co
Cargill Inc	Kemps LLC
Cargill Inc: Agribands International Inc	Kraft Foods Global Inc
Cargill Inc: Sunny Fresh Foods Inc	Land O'Lakes Inc
CHS Inc	Malt-O-Meal Co Inc
Coca-Cola Enterprises Inc	Nestle USA Inc
Conagra Foods Inc	Northwest Food Products Co
Dakota Premium Foods	Novartis Nutrition Corp
Dean Foods Co	Pepsi Bottling Group Inc
Dr Pepper-Seven Up Bottling	PepsiAmericas Inc
Farmland Foods Inc	Pepsi-Cola Bottling Co
Frito-Lay Inc	Pillsbury Co
General Mills Inc	Sara Lee Bakery Group Inc
Gruma Corp	Schwan's Food Service Inc
H J Heinz Co	

## **Food Distribution**

Similarly, Dun & Bradstreet lists over 3,000 wholesalers in the state, from the largest, listed below, to small.

### **Examples of food distributors in the Twin Cities:**

Albertsons (SuperValu)  
American Fish and Seafood  
Aramark (colleges, corporate and hospitals)  
Avendra (associated with Marriott and Hyatt)  
Bix Produce  
Bon Appetit (colleges, corporate and hospitals)  
Brooks  
Coastal Seafoods  
Coop Partners Warehouse  
J&J Distribution (SuperValu and Cub Foods — produce)  
J&B Distribution (SuperValu and Cub Foods — meats)  
Metro Produce (Lunds & Byerly's)  
Morey's Seafood International  
Sodexo (colleges, corporate and hospitals)  
Sysco  
United Natural Foods, Inc (Alberts Organics)  
Upper Lakes Foods  
*[The above list is not complete]*

## **Retail Groceries**

Among the 2,400 groceries tallied in the DEED summary, a few of the larger or more notable firms would be:

Ahold (Netherlands — Stop & Shop)  
Aldi (Germany — format in low-income communities)  
Coborn's (St. Cloud) purchases food from Food Alliance Minnesota  
Kowalski's  
Roundy's (Rainbow Foods)  
SuperValu/Cub Foods  
Trader Joe's  
Twin City Cooperatives (See list at Coop Partners Warehouse)  
Whole Foods  
*[The above list is not complete]*

## **Eating and Dining Establishments**

With over 10,000 eating and dining establishments in the state of diverse sizes, and no common data source, there is no meaningful summary that can be produced of the industry. Its 179,000 employees earn over \$2.2 billion in labor income, making this the largest single sector of the state's food industry.

### **Farmworkers**

It is equally impossible to offer a suitable profile of yet another important sector of the food industry: farmworkers. Data are extremely sketchy. Many of these laborers are migrant workers, typically from a region of Texas near the Mexican border. As calls for security have been ramped up following 2001, many have been arrested or forced into more covert life. With increasing difficulties in crossing the border, many have stayed on one side or the other.

Neither members of the Latino community in Minnesota, the state demographer, the Minneapolis *StarTribune*, nor legal officials who work with migrants are aware of solid data sources showing how many farmworkers there are, or what their major concerns are. Yet interviews with attorneys at the Southern Minnesota Legal Defense Fund show that conditions are changing in unpredictable ways.

More and more, attorneys say, growers have decided to turn to chemical sprays rather than hiring laborers to work their fields. This is in some respects a strategy designed to temper the uncertainties in the supply of farm labor, itself a product of more stringent enforcement. Other farmers who have hired migrants in the past may wait until the last minute to put out the word they are hiring — rather than developing longer-term relationships with families who can count on returning each year. All on all, these uncertainties have pushed more and more migrant workers into jobs in the meat processing, industrial dairy farms, or driving trucks, where lasting work can be found. Higher fuel prices mean that fewer and fewer people can afford to drive north. The climate of fear perpetrated by public authorities, and a tangible reduction in financial assistance, narrows their interest in seeking work. Those who do are typically immensely productive workers, and often overshadow their American-born counterparts. The work often poses physical risk, challenging outdoors conditions, and chemical exposure.

The economic data covering farm labor do not, of course, distinguish migrant workers from rural youth, nor are they concerned with legal status. All the same, this cursory data is humbling: total farm labor payroll (including non-migrant labor) peaked at \$916 million in 2001, and fell 13% to \$795 million in 2007. The state officially hosts 97,000 farm laborers — many of them neighbors to the farm itself — yet their average wage fell 27% from \$9,928 to \$7,216 per year between 2001 and 2006. These data are unlikely to be complete since there are such intense pressures on farmers and workers alike not to report all transactions.

Still, migrant farmworkers are of fundamental importance to how Minnesotans eat. In the central valley of California, the humid tomato plains of Ohio, and increasingly inside Mexico itself as farms gear up to produce for U.S. consumers, many of our fresh foods, including fruit and vegetables, would not appear on our tables without the devoted labors of migrant workers.

### **Economies of Size**

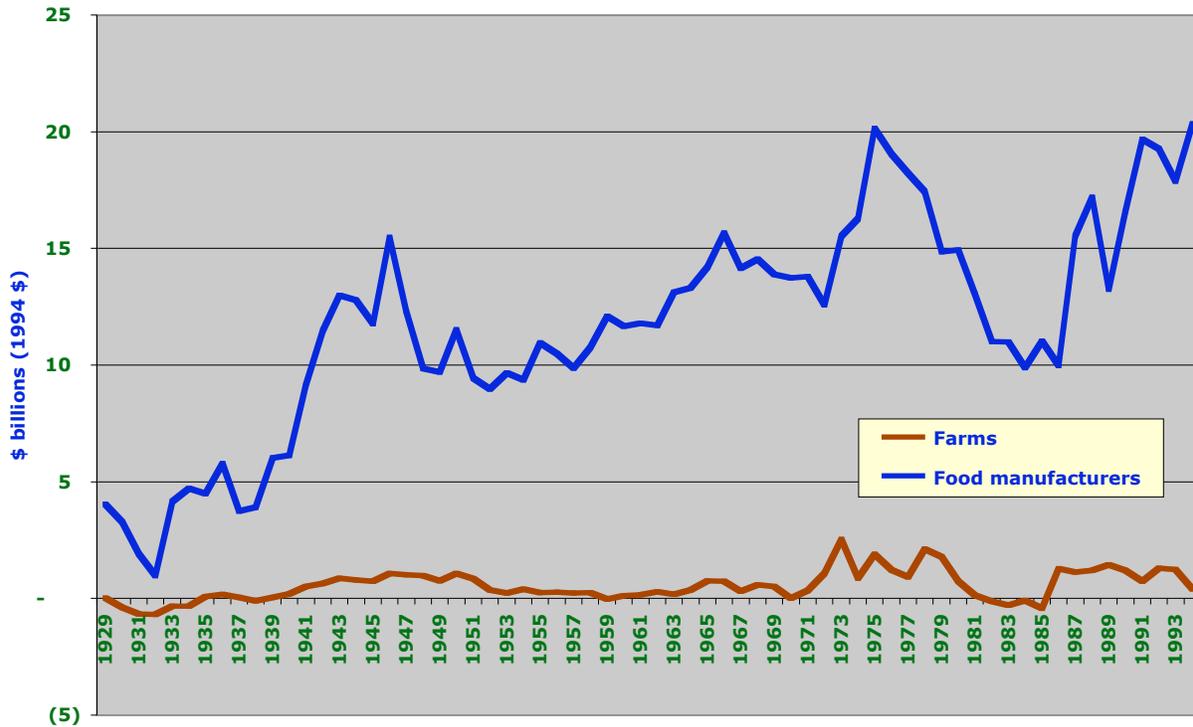
Several years ago, at the request of the Hiawatha Fund in Southeast Minnesota, I was asked to review the academic literature concerning economies of size (commonly called economies of scale, this term refers to efficiencies that can be created by increasing production since per-item costs are often reduced). This report revealed surprising results. The conclusion of this literature search was that for most farm operations, the most efficient size was a one- or two-person operation. In rare cases, larger farms were favored, such as selected orchards that simply were more efficient to operate at a larger scale. For most farms, as more workers were added, it became more difficult for

owners to count on employees holding a strong sense of purpose and focus, so efficiency went down. Nevertheless, farms still have reasons to get large, in part because they are encouraged to do so by tax laws and lenders, and in part because one can make more profit by being larger. Yet from the standpoint of efficiency, smaller farms tended to be best. Many of the economic models developed by quantitative analysts reflected an assumption that larger size would be more efficient, but failed to show this was true in practice. From a public policy perspective, it would be important to foster the most efficient use of resources, rather than favoring those firms that are the most profitable.

While there are clearly economies of size, they seem to be less than is commonly imagined. Since artificially low commodity prices, tax incentives, and public infrastructure all support businesses to get larger, it is difficult to know how much of the economies of size are actually due to efficiency. Russell Parker, a high-level Federal Trade Commission official who took a leave from his position in Washington to teach at the University of Wisconsin in 1976, wrote an analysis of expansion in the food industry. He concluded this expansion did very little to create new efficiencies. Primarily, he said, the expansion was possible because capital was available to make it happen, and to advertise that this was a positive development. Rising food prices became a key cause of higher prices, as measured in the consumer price index. “In the single year between 1972 and 1973, higher food prices caused over half of the increase in the overall Consumer Price Index in the United States,”<sup>8</sup> Parker concluded. Later research would document that these mergers were themselves plagued with inefficiencies, since firms combined in ways that did not strengthen their businesses. Ultimately corporate profits fell until the industry was further reorganized several years later.

Still, what is most striking is how out of balance the commodity economy has become. In a healthy economy, there is no reason that profits for manufacturers would constantly outpace those for farmers. Farmers face climate risks and other uncertainties that food buyers or manufacturers do not face. This imbalance would be exactly what public policy might set out to alleviate.

### Profits of U.S. farms and food manufacturers, 1929 - 1994



Source: Bureau of Economic Analysis

#### Commodities

A commodity is a product that can be sold in large quantities through mass distribution channels. Trade in commodities assumes that each product to be traded carries consistent and replicable qualities. Thus, the division of corn into number one (premium quality) and number two (high quality) corn facilitates trade among large-scale buyers and sellers. Rather than assessing all of the qualities of each individual batch, a small number of defining characteristics (in this case, quality of the kernel, to which might be added a measure of moisture content) assure the buyer that the produce they might bid for will be suitable for its intended use. As William Cronon points out, it was this grading — and public policy supporting it — that enabled long-distance trading, and the growth of a futures market.<sup>9</sup>

Similarly, Grade A milk would be funneled into processing into containers for home or institutional use as milk to drink; while the lesser quality of Grade B would make it more suitable for processing into commercial cheeses, casein, or dried milk, where the quality of each batch of milk is not as critical because its texture and properties will be somewhat altered anyway.

Thus, a produce farmer might be told by a broker that they must grade their green peppers into lots of same-sized peppers, with uniform color and appearance, so that they will all look the same on the grocer's shelf. This consistency is used by the broker and the grocer for ease of handling, to be sure, but also as a way of simplifying commercial transactions so that decisions on "price" and "quantity" will be facilitated: one can compare the fluctuations of supply and demand in three-inch peppers,

rather than having to account for the fact that one day the peppers were three inches, and the next, five.

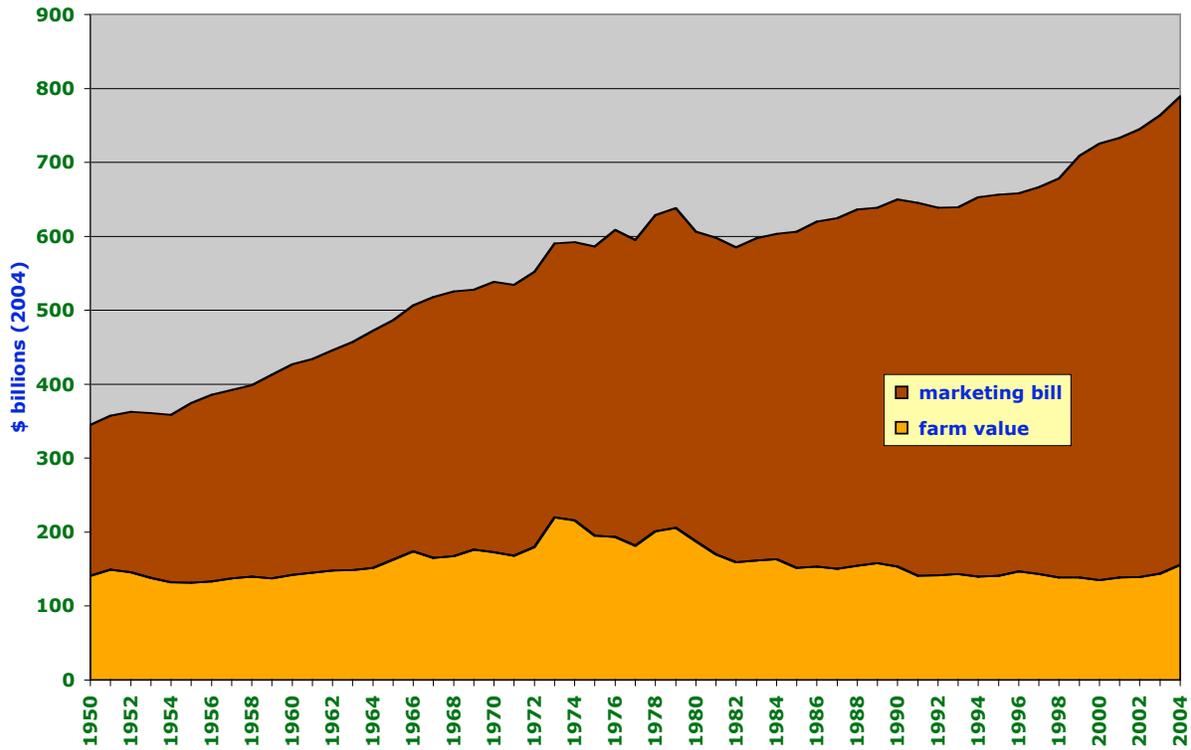
This sets the stage for the marketing transaction, in which generally the buyer will insist on paying the lowest possible price, and the producer will attempt to obtain the highest possible price, for each case lot. By simplifying each transaction, and standardizing it in relation to other similar transactions, marketers can better understand how the market changes over time, and more easily apportion value.

All this is essentially an effort to make the product conform to the rules of the market. Further, the logic of commodities also favored foods that could be made relatively inert, so they could be stored and sold at the convenience of the trader. While this may make the market more efficient, this may not always work out to be in the best interests of producer or consumer.

This leads to another reason that supply and demand do not balance well in the commodity market. Farmers face risk that buyers and consumers do not, since they are dearly affected by changes in weather, climate or other environmental conditions which are inherently unpredictable. Further, farmers have very little clout in the marketplace. Far from being a free-market situation in which each party has relatively equal power and access to information, farmers sell to highly concentrated industrial buyers who are free to choose to trade with other producers at a whim. In economic terms, highly independent and isolated small producers sell to monopsony buyers [that is, a few buyers with concentrated economic power]. English economist Joan Robinson noted in the 1920s that this would always place growers at a disadvantage, unless public policy set more even terms of trade.

As a result, look at the growth in what USDA calls the “farm marketing bill:” that proportion of costs that is apportioned to processors, buyers and retailers, as opposed to farmers (next page). The *maroon* (darker) area shows the value attracted by these intermediaries. The *orange* (lighter) area shows the value realized by producers. Note that in 1950, farm income was 40% of the retail value of all food sold in the U.S.; by 2004, farmers earned about the same income in inflation-adjusted dollars, yet this only made up 22% of the retail value of food. Thus, wealth has been drawn from producers to intermediaries.

**Farm value and marketing bill in U.S.  
— their shares of retail prices paid by consumers, 1950-2004**



Source: USDA Economic Research Service

Since it has been U.S. policy, adopted by bipartisan agreement, to favor the least possible restriction of deals made in the marketplace, these trends have gone unchecked for generations.

From a systems view, this close focus on price and quantity has dire consequences for Minnesota's food system. First, by distilling complex transactions into simpler measures, it produces a simplistic view of that complexity, ultimately distorting the system itself so that products — and participants — themselves are shaped by the logic of the market. By separating supply from demand, it prohibits the possibility that producer supply and consumer demand will balance. By institutionalizing imbalances of power, it creates rules of economic trade which tend to extract wealth from the communities where food is produced or consumed. Yet this narrow focus on economics also carries deeper, and perhaps even more challenging, unintended consequences. For producing food is not simply a matter of economics — it is simultaneously an effort to improve health outcomes, to build human capacities for handling food safely and preparing it attractively, and also to build human connections within community and ecological settings. In an economy that is based on commodities, these additional goals — which are by no means less important than building wealth — tend to be overlooked. The system is in a very tangible way narrowed down to what is measured, and in fact is distorted by undue attention to a small set of indicators, which do not address many of the key trends.

Overall, the commodity-based economy has significant strengths. By trading on a commodity basis, food markets create substantial wealth while at the same time keeping prices for the consumer

relatively low. This may make the price of food lower for society (although studies have documented that the concentration of power in the food manufacturing and distribution sector ultimately increases retail prices), certainly aids in the strengthening of a potent food manufacturing sector; makes a vital contribution to commodity export markets that serve as one of Minnesota's key economic strengths; lends prominence to the state in global trade affairs; adds to the economic importance of the state, and creates a food trade that is highly efficient on the basis of cost inputs to the industrial firms involved in handling food commodities. This commodity sector literally adds billions of economic value to the state economy.

Yet, as in any complex adaptive system, this strength may also pose dilemmas of its own, and may lead to unintended negative consequences. First of all, this system, as efficient as may be, requires massive subsidy from federal and state governments. In addition to more than a billion dollars of subsidy each year from federal sources to Minnesota producers of key commodity crops (these end up being subsidies to lenders, input dealers and consumers alike, since they reduce transaction costs for each of these parties), the commodity system also benefits from tax subsidies that lower the cost of mergers and acquisitions, and reduce the costs of business expenses. Subsidies to highway, rail, river, and ocean travel also reduce manufacturer's costs. Yet the commodity system as we know it simultaneously features a lack of public accountability, since key decisions are made by private industry with little public reporting or public ability to mount proper oversight.

The intense and narrow focus on cutting costs creates a critical sense of inflexibility to change, with a lack of economic margins for coping with unforeseen circumstances. Thus, as one section of this report was written in 2008, only a twelve-day supply of wheat was available in storage. This is a system that effectively learns about cost-cutting, and then is surprised when that yields scarcity. It is not strong on planning for resiliency in the face of an uncertain future.

The commodity system of today is also based on an immense assumption that fuel will be available, and at low prices, making the transportation of food commodities inexpensive, and assuring buyers highly replaceable choices for raw material supplies. This assumption appears to be losing validity rapidly, and may have disappeared for good, as oil supplies peak.

The commodity system also engenders a focus on public planning to ensure mobility of raw materials, and attention to export markets abroad. Thus, local planning for assuring the safety and security of food supplies is overlooked. Local facilities that might build resilience and flexibility into the food system have typically been dismantled — such as grain elevators or creameries that address local markets. The state has in a very real sense become dependent upon other nations needing our grain exports, while local food needs often go unmet. Ironically, the U.S. came close to becoming a net importer of food commodities in 2005 — until the weaker dollar and higher commodity prices gave a boost to exports.

By concentrating technical capacities in the industrial sector, the commodity system has disempowered household consumers, to the extent that the U.S. loses 5,000 people each year to food poisoning.<sup>10</sup> Consumers are so disconnected from the sources of their food that many think milk comes from cartons, not cows. Even checkout staff at local supermarkets cannot identify common vegetables since they tend to view them in terms of PLU codes that are scanned by computer.

All the while, the USDA estimates that 11 percent of Minnesota households are food insecure — meaning that at some point during the year, the household is not certain where it might obtain its next meal.<sup>11</sup> Medical practitioners report that half of the elderly seeking medical care arrive at their provider's office undernourished.<sup>12</sup> More than half of the nation's public school students cannot afford even low-cost (\$2.50), highly subsidized (and often not totally healthful) school lunches.<sup>13</sup>

Ironically, issues of overconsumption — overweightness, obesity and diabetes — are simultaneously becoming more critical public health concerns than hunger itself. Two of every three Minnesotans are overweight, nearly a third are obese. Each condition is linked with incidence of disease. Research points to high fructose corn sweetener (HFCS) as a key factor in contributing to overweight conditions, since humans have no enzymatic response to HFCS that signals when they have had enough to eat. Consumer access to a plethora of low-cost, carbohydrate-based products is also viewed by some researchers as a key factor. Another potential factor — whether humans who eat grains and grain-fed meats that have been genetically selected for their ability to gain maximum weight over time may also ingest properties that encourage human consumers to gain weight in kind — appears to have been overlooked in academic research to date.

To sum up, while the commodity system has built considerable health, wealth, connection and capacity among industry players, this growth has come at the expense of rural and urban communities, which have experienced sharp declines in all four outcomes. The one-dimensional efficiency and productivity of the firms that make up the food system does not necessarily create health, wealth, connection or capacity at the community level. From the standpoints of consumers, or the rural communities where food commodities are produced, the system is neither productive nor efficient.

This is not, of course, to say there should be no commodity trading. This industry will, and should be, a major contributor to the state economy. Yet it is to argue that commodity trade must be tempered through public policy, and that assuring the strength of other market sectors is equally vital to building health in our society.

Emerging since 1970 has been a cluster of firms that attempt to create a more responsive food system that somehow works around the impersonal logic of commodities. Let's look at some examples of those firms. This, in turn, will give us great insight into the overall food system itself.

#### IV. HOW THE MINNESOTA FOOD SYSTEM WORKS

Precisely because it is so complicated, it is impossible to fully describe the workings of Minnesota's food system. Quantitative measures alone would not be sufficient. It is also critical to contact wise practitioners who know intimately the day-to-day transactions of money, information, and power in the system, and who also have stepped back from those dynamics enough to assess key forces from a perspective broader than their immediate self-interest. By so doing, many key insights can be gained.

To focus this part of the analysis, the system will be viewed *from the perspectives of newly emergent players in the system*. Understanding the properties of the system that are newly emergent — in this case, the growth of interest in local, sustainably produced, and higher quality foods — is often, in systems terms, one of the most efficient strategies for learning the qualities of the system as a whole. The dynamics apparent as a complex system changes offer an excellent perspective on the core relationships of the system itself, including both its changing nature and its resistance to change.

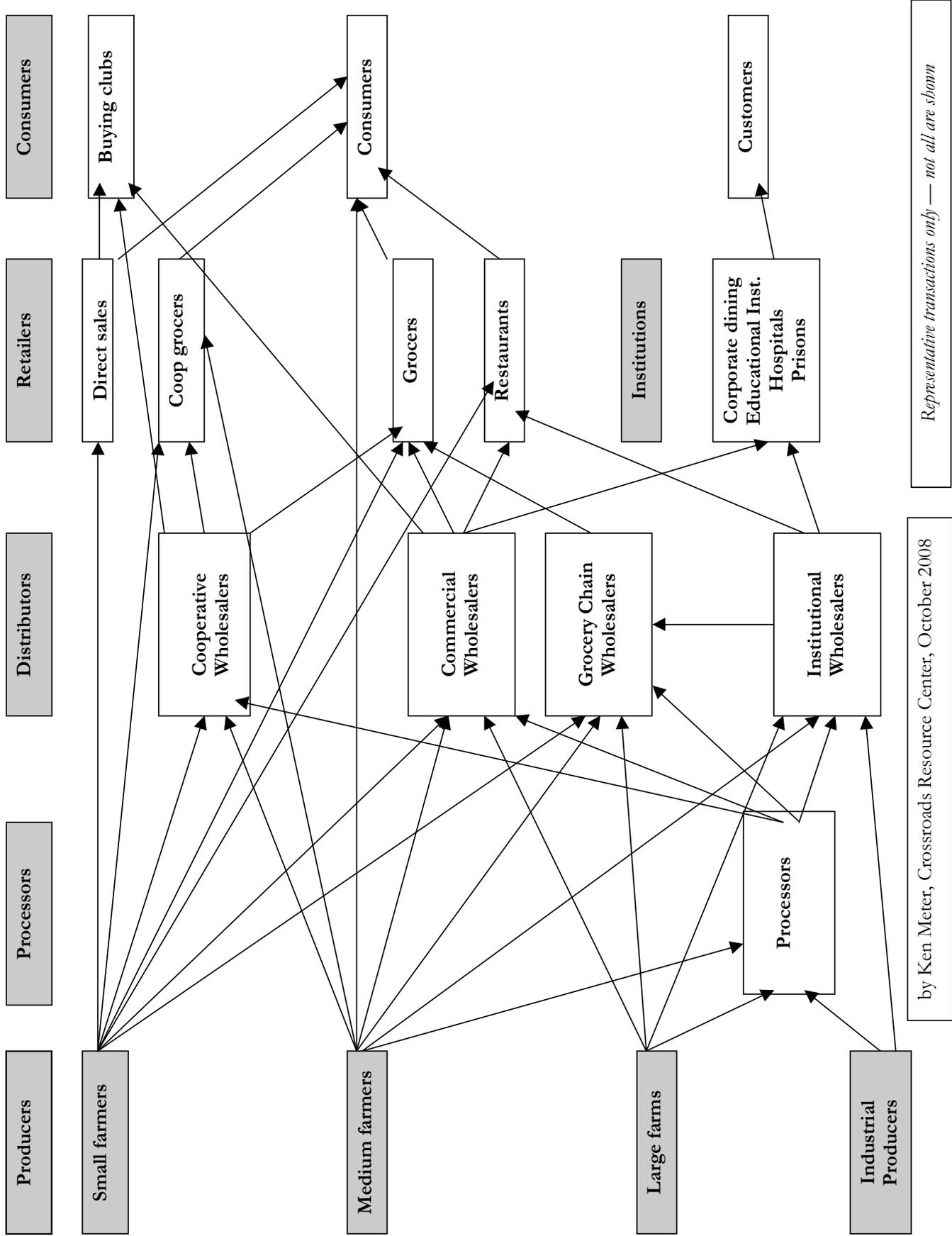
Interviewees were selected on the basis of their leadership in creating the emerging food system, and how effectively the story of their business could convey broader insights about the Minnesota food economy. Any such list is bound to be incomplete, given limitations of space and time. Yet this selection did allow essential themes to be identified.

Those who are trying to expand local and sustainable food production are also excellent sources since they have much to gain by being open about what they are doing. In the day-to-day practice of their work, they have found that openness helps them communicate with potential investors and allies. Moreover, many of the sources directly involved with the broader industry were not interested in being interviewed.

Only four market leaders will be profiled in this section; additional interviews may be found in Appendix G. Key conclusions from these interviews will be summarized in the final section of this report.

The system is complex enough that it is useful to show the key value structures through which food passes between producer and consumer [See next page].

# Value Structures in Minnesota's Food Industry



by Ken Meter, Crossroads Resource Center, October 2008

Representative transactions only — not all are shown

## **LEADERS IN THE EMERGENT MARKET**

One Metro area business that both symbolizes how the Minnesota food system works, and exemplifies the emergence of new food businesses that have been able to shift supply channels and unleash new consumer demand is, surprisingly, not one of the traditional local food industries, but rather a seafood distributor, Coastal Seafoods.

### **Coastal Seafoods**

The challenges Coastal Seafoods wrestles with are infinitely more difficult than those faced by those who would bring fresh local produce, meat, or milk into the Twin Cities market. Certainly, seafood is only marginally a local industry. The bulk of Twin City seafood trade involves products that are harvested from ocean waters around the world, following migrating fish populations, shifting populations, and considerable unpredictability regarding weather. The product is highly perishable. Still, lessons learned from this extreme realm of uncertainty appear to be deeply relevant to the relatively more predictable, broader food trade.

Traditionally, grocers had responded to this uncertainty by offering a small number of very recognized products that came through established commodity channels. Although quality was often high, flavor and freshness were sometimes lacking. Minnesotans often had little interest in buying fresh seafood because it was not a familiar product, because they were uncertain about supply, or because they simply were not aware of its availability.

Coastal Seafoods stepped into this low-risk, commodity context twenty years ago, and has literally been the driving force creating immense change in the Twin Cities seafood market. Today, a large variety of types of seafood are widely available at grocery counters. Freshness is far more certain. Quality is high, as are prices. Customers themselves are more mobile. This one firm led this transformation.

With two retail stores (in Seward neighborhood in Minneapolis, and near Macalester College in St. Paul) as well as a wholesale operation, Coastal has become one of the major suppliers of seafood into Twin Cities households, restaurants, and supermarkets. Increasingly, they are also reaching customers in smaller towns in rural areas.

“We were the first to do a lot of things,” recalls Coastal Seafoods’ owner, Tim Lauer. “Twenty years ago, there was no one looking to bring a variety of seafood into the Midwest.” Lauer believes his background in the restaurant industry helped him see the potential for introducing new products and processes. Over time, he adds, “if you look at other markets, they’ve become more like ours.”

“Seafood is different than beef. It does not work really well as a commodity. Demand is smaller, and more niche-oriented. It’s more perishable. People want fresh fish, not frozen. It’s a more fragmented market and supply chain. Supply varies on a daily basis. You can’t grade and inspect the way you can with beef. Unlike any other protein source, fish comes from an enormous array of sources. The variety and quality requires us to look at and touch things every day. Unfortunately, quality really varies. There is so little we’re in control of. The ability to see and judge on an individual basis cannot be replaced.”

He adds, “I have a cousin who is CFO for a really large group of supermarkets nationally. The only thing they could not do well is seafood.”

One of their competitors focuses more on a steady supply of fewer items for an institutional market, and has been a mainstay local business for decades. The grocery chain Target has emulated Coastal’s success with a more limited line of fresh seafood, mostly farm-raised. “It fits what they are doing,” Lauer adds.

One key to Coastal Seafood’s success was the fact that the Twin Cities was a hub for Northwest airlines, Lauer adds. “We can bring a fish like *opah* from Fiji in a matter of twelve hours.”

Presence of this hub also allowed the Twin Cities to fashion a seafood industry that is unique in the nation, he adds. “Seattle obviously has more seafood,” Lauer point out. “Yet their selection is more limited. People there grew up on salmon. They never saw monkfish, pollock, haddock, or walleye, so there is very little demand for them. For the same reason, in Boston, where there are more than a hundred independent seafood stores, consumers’ choices are far more limited.” Precisely because the existing firms have such deep roots, selection focuses around traditional items, and there is more resistance to change.

“We’re shipping seafood to small towns in North Dakota, Iowa and Western Minnesota that never had access,” Lauer continues. “They are ordering opah, barramundi, and monkfish — fish that no one ever heard of twenty years ago.”

At the time the business began, “No one even considered selling Chilean Sea Bass. We could buy it then for \$1.50 a pound,” Lauer says. Buyers may not have understood its quality. Then it was featured on the cover of a local magazine. “Now it is the most expensive fish we sell.”

To Lauer, it is precisely the changing context that makes his work fun. “All these changes are difficult for Target or other competitor to do,” because their business is centered on more predictable, large-scale supply. At Coastal, Lauer adds, “Two or three of us decide what we buy and sell. We can react quickly.”

Yet the basic underpinning of that flexibility is “a high level of personal trust.” This work “involves a lot of relationships. We’ve built them through trial and error over years. Now, people we trade with know we’ll be there if they produce.”

Lauer boils down his business style in the following terse words: “We pay quickly, we’re really loyal, and we’re really demanding. We’re in the top one percent of difficult, demanding customers. Over the years we’ve found people willing to do that. There is one fisherman in Florida we buy from. He does not have fish every day, but when he has fish, they are great. He has a small boat. He might be delayed by wind. At times, his motor may break. We don’t mind waiting out those days, because we know he will deliver quality.”

He told a story that exemplified the essential nature of these relationships of trust. “We deal with some really large firms. I dealt with one sales rep for 15 years. He made it possible for us to do what we do in trading with his firm. We had built a great deal of loyalty. Then, the guy accepted a promotion. Our concern was, who in the firm would respond to our needs. Our sales rep picked

out one guy, and told us, ‘you’ll have to trust this guy — he is willing to learn.’ Now, we’re converting him. He’s made it a success. He likes working with us. He has to make enemies [with people in his own firm] at times to do so.”

In contrast to the relative predictability of the commodity market, Lauer points out, “There is an advantage to being seasonal, as we are. It gives us a wider base of products. It allows us to take advantage of our unique situation. We buy a larger variety more frequently from more places than other firms. I don’t care if I buy today from a guy who sold me opah yesterday.”

In addition to these relationships with his suppliers, Lauer describes his relationship with consumers as “education-based.” They devote considerable attention to showing their customers how to handle and prepare the seafood they buy. “We try to be as educational and as honest as I can, but this works against the traditional character of the industry.”

Responding to consumer interests has altered Coastal Seafoods’ product line. “Two-thirds of the shrimp we sell in our retail case is wild. That is largely due to consumer demand. The flavor is more unique, and more real. It’s also more expensive, and not as easy to handle. It is harder to get at times. Yet we carry it, because our customers asks for it.”

The example of Coastal Seafoods does not totally fit the more stable geographic supply lines of the local meat, milk, or produce industries. Nevertheless, the complexity of each supply chain brings its own uncertainty, especially at a time when consumer demand is changing rapidly, international sources increasingly compete with established local suppliers, and questions about consumption patterns raise questions about what we eat.

Lauer’s account of the emergence of his business underscores a theme that was repeated by each of our informants. Key to survival in uncertainty is strong relationships of trust. Interpersonal connections help people learn about and adapt to change — and also in themselves become a force for change. Qualities like loyalty and persistence may trump economic power.

Small groups of people wrestling honestly with a vision for a better future amount to a creative force that is difficult to muster within the commodity economy. For all of the strengths the commodity industry has in assuring steady supply at lower prices, and for all of its success in paying its managers and stockholders relatively well, the cutting edge of change is on the margins of that commodity economy, not inside its mainstream. The mainstream’s focus on reducing margins often yields mistrust and competition, narrowing the system’s attention to price — at the expense of quality or creating essential reforms.

Next, this analysis turns to an example that is more focused upon the foods that are produced on farms. Once again, this is the story of an industry in which Minnesota holds a unique role: cooperative food trade.

### **Cooperative food trade**

Coops represent a nearly forty-year effort by local visionaries to create new possibilities in the local food system more broadly, especially concerning items like meat, dairy products, and produce that can be sourced from predictable places. Today, ten percent of all the food cooperatives in the U.S. are based in Minnesota and surrounding states. Coop leaders claim that more than 40,000

consumers have joined state coops. Drawing upon a unique immigrant heritage of cooperative enterprise, and connected to international colleagues, the state's cooperatives have shaped the choices that all of us have for food, perhaps more vividly than any other business in the region. Like Coastal Seafoods, this is also a story about business that cares about more than simply doing business, immersing itself in relationships of trust with suppliers and consumers alike, and serving as an educational force that has caused major shifts in the state food system.

“Food coops are lifestyle leaders,” says Kevin Edberg, director of Cooperative Development Services in St. Paul. “Coops invented the organic food movement.” Today, organic sales are the driving force in retail food sales, with sales rising at 16 percent per year for over a decade (though trailing off a bit in 2008) — compared to three percent for retail grocery sales as a whole. The Wisconsin cooperative Organic Valley has bloomed from 8 farmers meeting in a living room in 1988 to 1,400 members and \$532 million in sales. “Where was that industry incubated?” Edberg asks. “Certainly not at SuperValu.”

Edberg also credits the coop movement with focusing attention on the humane treatment of livestock, the expansion of herbal remedies and alternate healing methods, and the use of natural ingredients in a wide variety of consumer products. This was accomplished by creating relationships among producers, suppliers and consumers that allowed consumer interests in healthier lifestyles to be expressed as market demand for new products. Coops also became an educational forum where shoppers could learn about new products and processes, and learn to be more discriminating in their purchasing habits.

Yet there were also other, more technical innovations. Procedures and technology for selling bulk items efficiently were first fashioned by cooperative volunteers — and then adopted by commercial producers. While produce was a loss-leader for many supermarkets in the past, the demand for fresh produce that cooperatives generated has transformed produce sections into profit centers for supermarkets nationally. Further, coops have shown that small-scale groceries could be viable in urban settings, just as the commercial stream moved toward big-box retailing. Now, stores like Wal-Mart and Lunds/Byerly's have followed the coops' lead. With member equity to draw upon, coops have been able to obtain financing for creative ventures when larger firms could not — and thus could help define the retail industry's innovative edge, for example by opening walking-friendly stores in urban neighborhoods.

Now, Minnesota has “the largest and best cooperative community in the nation,” Edberg says. Lori Zuidema of Coop Partners Warehouse adds that state coops earn almost \$120 million in annual sales, with the Wedge contributing the lion's share of that total (\$75 million), and another \$26 million of sales by three Lakewinds stores. The Wedge serves a prosperous Minneapolis clientele of 13,000 members.

Strengthening local foods is important because “we need to change human behavior,” Edberg adds. “It is not simply a consumption issue. It is not simply a marketing issue. Our kids are fatter than their parents. Moreover, people are hungry to engage in fresh, authentic experience, to have a lifestyle that is interactive, not just routine. This also concerns the costs we are willing to assume to create the lifestyle we deserve to have.”

For example, he continues, “Young moms are the major entrée into organic foods. They want their kids to have healthy foods, especially milk. Others come to organic food because they had a bad news from the doctor, especially concerning cancer and obesity.”

How Minnesota cooperatives positioned themselves to be one of the first places consumers learn about such healthy food choices goes back a long way indeed. Cooperative forms of enterprise were first brought to Minnesota by European immigrants, especially those from Central European, Finnish, and German cultures, who had experienced coops as an important tool for survival in their homelands, where the economy was often controlled from the top down. As credit systems and agricultural markets floundered near the turn of the 20<sup>th</sup> Century, grassroots political movements drew upon cooperative principles to force the creation of a state-owned bank, and grain elevator, in North Dakota. In the throes of the farm depression that led to the financial collapse of 1929, rural families depended upon cooperatives for survival. In 1930, half of all farms in the state marketed through cooperative wholesalers — a total of \$106 million of sales (\$1.8 billion in current dollars).

Yet this commercial network grew weak as the Depression depleted member resources, and as increased mobility weakened the ties coop members once held with their neighbors. As prosperity set in during the 1950s, people felt they could make more money outside of the cooperative world. In addition, some of the early grain and dairy coops became so successful, and so large and unresponsive, that members felt their managers had become disconnected. The coop form of organizing became suspect.

However, in 1969, a group of farmers and urban consumers met on a farm in Northwest Wisconsin, framing a vision for renewing cooperatives as a prime vehicle for creating a stronger local economy. They envisioned a network of food cooperatives trading with coop wholesalers, hiring coop mechanics, and reading coop newspapers. All of this vision came to be, yet it was quite transient. The first coop food store, North Country Coop, opened near the Augsburg College and University of Minnesota campuses.

Lacking investment capital, working on determined volunteer energy rather than in secure jobs that paid living wages, politically marginalized, and devoted to countercultural lifestyles, coops did not enjoy much favor. Yet there were over 20 coop food stores in the Twin Cities in a matter of just a few years. A regional cooperative warehouse became a reality. Coop car repair, carpentry, hardware, restaurants, and other stores emerged.

Yet internal divisions within the coop community, changing family demands that limited volunteer hours, and a hostile policy climate combined to take a severe toll. The more successful coop food stores merged into the smaller number of larger stores we know today. Many folded. Rising prosperity fueled by computer technology removed some of the urgency that consumers had felt when energy prices skyrocketed in 1973. Sadly, North Country Coop itself failed on November 4, 2007, even as coop foods markets came into maturity. North Country’s persistent efforts to serve limited-income residents appears to have limited its revenue.

Blooming Prairie, the cooperative food wholesaler, was sold to a private firm, UNFI, while another, Roots & Fruits, persisted. In 1997, gaps in the availability of products from small and mid-sized local farms was felt so keenly by the Wedge that they formed Coop Partners Warehouse as a subsidiary. Coop Partners now serves about 60 retailers, including all of the coops in the region, several private grocers, and several independent restaurants, as well as 20 food-buying clubs. Lori

Zuidema, director of business development, says most all of the produce the warehouse carries is organic. During the harvest season, the firm may carry as much as one-third of its product from local sources. Yet they also regularly send trucks to the west coast to pick up organic products. The warehouse will also collaborate with larger commodity farms and individual farmers to share truck space, reducing costs for all and increasing the system's flexibility.

“Demand for local foods is surprisingly strong,” Zuidema adds. “Our sales are growing 8-12 percent per year. We’re getting calls from the University of Minnesota, from the Mayo Clinic, asking about local foods. We’ve just expanded our warehouse threefold.”

To be sure, during the winter months in Minnesota, the warehouse relies on shipments of distant produce, from southern regions of the U.S., as well as foreign sources such as Chile and Argentina.

The firm also feels constrained by its relatively small size, and the fact it is placed within an industry of strong competitors. Knowing their most protectable niche is organic foods, they have turned away requests from their customer base to sell conventional foods. “The Del Monte Gold pineapple is the best one in the market. We don’t carry it, because it is not organic. We do carry conventional apples, but only from local farms that are making the transition to organic. We carry both organic and conventional bean sprouts, because the conventional are locally raised. It is always difficult when you have limited market base.

“We try to sell the story of the food,” she continues. “We sell as quality. Behind that is the brand, the name, and the family that produced it.”

Maintaining this connection to the farmer seems important to the cooperative niche. Barth Anderson of the Wedge reports that one local farm that sells to Coop Partners, and pays them for hauling their product to stores, still likes to sell directly to each store. “The farmers have to stay in contact with the store” to know their needs, he adds.

Anderson, echoing Tim Lauer of Coastal Seafoods, emphasizes that building fruit and vegetable trade is primarily a matter of building relationships. “It’s a question of authenticity. The consumer wants to be assured of good answers to several questions: how long ago was this picked? Who did the work? What are their labor practices? What are their farm practices? Big box grocers can’t do this, they’re too big, unless they develop those personal relationships. A store the size of Whole Foods may be able to pull it off.”

As an example, the Wedge buys carrots from a young couple in Western Minnesota who plan their production so they can ship a half ton of carrots in a single truck on one day, sending it directly to Coop Partners, where it is dispersed to urban retail stores. “We pay them more than we pay for California carrots. Trader Joe’s cannot do this” because supply channels are fixed.

Still, Anderson recognizes that private firms with more money will go where the coop movement has built a base, often making more profit as the industry matures beyond the foundation built through cooperative enterprises. Yet, in the long-term, he feels, the coops may still thrive if they continue to maintain their authenticity. Competing with Organic Valley has been Horizon milk, which has been criticized by some consumer advocates for working in a more top-down manner, and not always following optimal farming practices. When the local dairy, Cedar Summit, entered the market, customers were drawn to Cedar Summit’s grass-fed dairy products. Anderson says that

through all this, Organic Valley sales stayed the same. “They are so transparent as a corporation, customers developed a loyalty to them.”

Anderson is critically aware of what is needed to strengthen the coop system. “We need more farmers,” he says, because demand is rising so fast. Others in the coop, however, prefer that demand be met from existing farms.

Anderson adds that he hopes Coop Partners will develop the capacity to put organic foods into bigger stores. Cub Foods’ distributor, J&J, for example, services an organic foods cooler inside Cub big box stores. Anderson says, “Perhaps Coop Partners could do this for big stores.”

Anderson also thinks the region needs much stronger infrastructure for processing locally raised meats for Twin Cities markets. The Wedge is also venturing into alternate energy, and plans to sell bio-diesel fuels (derived from soybeans, canola, meat scraps, or other natural sources).

Recently, “the number of communities wanting to start food coops has mushroomed,” Kevin Edberg adds. He notes that the trend started to pick up in 2002. “The current food system is not offering something consumers need. People are looking for community, locality, nutrition and connectedness. Rural towns are losing their mom and pop grocers. Poor urban neighborhoods have limited access to fresh foods.” Interest is so high, he says, that Just Foods, the cooperative recently formed in Northfield, earned \$3 million in sales their first year.

“Cooperatives have a wonderful story to tell,” Edberg continues, “Yet as healthy foods become more mainstream, coops need to differentiate themselves in terms of the authenticity of the food they sell.” Sustainability certification, such as the Food Alliance of Minnesota’s label, will help coops expand into more markets, he points out.

### **Sodexo Minnesota**

As an outpost of a national food distributor with \$8 billion in sales, the Minnesota office of Sodexo has attracted significant attention as a champion of locally sourced foods. Featured by the Food Alliance of Minnesota as a key partner, Don Kulick has demonstrated that a large firm can make a significant impact by building relationships of trust with its customers. [Kulick was promoted to a different position since this interview was completed.]

One of Kulick’s first victories was to assist the Morris campus of the University of Minnesota to source food locally. Since then Sodexo Minnesota has expanded to about 75 accounts carrying local or sustainably raised products. This, he says, includes forty corporate food services, twenty hospitals, twelve colleges, and four schools in Minnesota, Iowa, the Dakotas, Nebraska, and Wisconsin. He also has begun to open accounts with other distributors, such as Bix Produce, Albertsons, Axdahl, and Sysco.

“Whatever is available, I try to buy all of it,” Kulick says. “I say I want it to be sustainably raised, not just local.” He estimates the firm’s total sales of sustainable local foods as nearly \$180,000 in 2007. In his experience, local produce sells for the same price as California products, while organic produce costs two to three percent more.

Kulick also devotes his attention to helping each of his outlets become more sustainable in other respects. He sources “spudware” utensils for Carleton College that are made from potato starch, green cleaning agents and supplies from Ecolab, and compostable supplies from other firms. He has developed a software template that assists a food service manager to make decisions in their kitchen. If the manager inputs what his priorities are (organic, sustainably raised food, local food, or overall environmental impact) this program will help them identify what costs would be involved in pursuing each strategy.

He also works with corporate chefs to find creative ways to promote healthy eating. At West publishing, the kitchen features a sushi bar. At another firm, boxes of free fruit are available during the entire workday, to foster healthy snacking. With several colleges, Sodexo has launched a “Balanced Way” approach to food service, where students are served set portions that include a healthy balance of different nutrients. “We think this is helping reduce students’ protein intake, and it certainly reduces waste,” Kulick says.

At the Morris campus, with substantial assistance from local farmers, Kulick has worked with the head of the food service to host regular local foods dinners featuring products from nearby farms. This has become the pioneering campus in the University of Minnesota food system to show the viability of local food sourcing, and certainly helped pave the way for the Twin Cities campus to follow suit.

### **Sysco**

As one of the largest distribution firms in the nation, Sysco is perhaps the most ubiquitous wholesaler around. Many small-town groceries and restaurants are served by the Sysco truck, which delivers both food items and essential related supplies (such as napkins, packaged condiments, paper cups, and plasticware).

Sysco supplies 400,000 customers, including hospitals, restaurants, schools, colleges, hotels and motels. With 51,000 employees at 170 distribution centers, its sales topped \$35 billion in 2007. Capital expenditures topped \$550 million.

“We have about 600 different suppliers,” says Twin Cities representative Jeff Larson. “Roughly half of them supply us with food.” This is low-margin, day-by-day delivery that may lack glamour but reliably serves a substantial portion of the state’s population. “We’re constantly moving foods such as potatoes, peppers, sweet corn, cabbage, and squash. We buy lettuce, tomatoes, and oranges seasonally. We buy locally when available, but also rely on regular suppliers in California, Florida, and Arizona.” The firm also imports foods, but those decisions are made by headquarters in Houston, Larson says.

Among the Minnesota growers, he says, are potato producers in the Anoka sandplains near Elk River and Becker, the Red River Valley, with others in North Dakota and near Rice Lake, Wisconsin. Cabbages are sourced from Gary Paul in Apple Valley, Axdahl Farms in Stillwater, and Vine Valley in Becker. John Gilbertson of Scandia ships the firm sweet corn.

“Our growers are pretty solid,” Larson adds. “They have to be pretty large scale to handle all of Sysco.” Still, the firm also makes sure it has multiple sources, in case there is bad weather or an outbreak of disease at one supplier. “We sell 300 boxes per week of green peppers from one guy

alone.” Larson continues. We can carry as much as 3,000 pounds of sweet corn each week during harvest time.

Key to these large supplies is advance communication. “Our growers know what we need before they plant. We should not have a shortage.” Typically, Sysco does not rely on written contracts, counting on “good relations through the years” to ensure loyalty from the producer. If one grower experiences unexpected difficulty, “We just move to a different source.”

Sysco gained quite a bit of visibility when its CEO Richard Schnieders said that he wanted the firm to be able to source small lots from small producers. At the Practical Farmers of Iowa conference in 2003, he said he hoped the firm would develop the capacity to ship a single case of food from the grower to any store in its system. This raised the hopes of many farmers.

Yet, the official Sysco account of the meeting only cites Schnieders statement that “The biggest problem for sustainable agriculture is building its own supply chain. He said that groups like PFI and the Leopold Center [at Iowa State University] are needed to help build the infrastructure that could supply and deliver the product [to Sysco]. “In the area of food service, your product fits the bill,” he said. “Once you have the infrastructure to supply and deliver it, your product can be connected to our network. Our customers want your product and we can get it to them.”

The release continued, “I see enormous opportunities for sustainably raised products in the food service business,” Schnieders said. “Food service operators are always looking for new products to set themselves apart, so there’s a constant demand for differentiated products. We welcome working with farmers who work in an environmentally and ethically sensitive manner.”

The Leopold Center’s brokered a negotiation between Sysco and an Iowa heirloom tomato producer. Although the producer had the production volume to attract Sysco’s interest, the firm ultimately decided there was insufficient consumer acceptance of heirloom tomatoes to justify moving forward with an agreement.

Others who have worked with the firm note that while Schnieders seems sincere in his effort to promote the shipment of local and sustainably raised foods through the system, this goal often comes into conflict with middle managers who are charged with selling at the smallest possible margins.

Larson, from his perspective in Minnesota (and who has been active in the Minnesota Project’s Heartland Initiative to build connections among local food firms), now says, “There has been a lot of talk about getting the real little guys into a pooling system. Sysco talked about it. Nothing has been done yet. Something has to be done to help these little guys compete.”

He adds that the two main challenges for small producers are transportation, since unit delivery costs are reduced the more one truck delivers, and insurance, since firms like Sysco, Bix, and Sodexo insist that farmers who sell to them carry \$5 million of product liability.

Larson also sees tremendous potential. “Our customers are becoming more and more aware. We’re seeing rising demand for local product.” And, he adds, “We’re willing to talk to just about anybody.”

## KEY ISSUES IN THE EMERGENT FOOD SYSTEM

### **Powderhorn-Phillips Cultural Wellness Center**

Atum Azzahir, director of the Powderhorn-Phillips Cultural Wellness Center in Minneapolis, pauses mid-sentence as she describes the issues faced by her neighbors in inner-city Minneapolis. Wearing an African print dress and surrounded by African artwork on the walls, Sister Atum oversees an outpost of cultural rootedness that has tackled issues of diabetes, exercise, health care, and diet in her neighborhood for more than 13 years.

There is perhaps no more revealing lens through which to view the Minnesota food system than through the eyes of those most on the margins. The issues we all face, low-income citizens face in more extreme ways. The vulnerabilities we all feel are more closely felt here. Through marginalization and lack of economic clout, the possibilities for improving the food system seem more acute, yet perhaps more remote.

Sister Atum's primary conclusion, blending considerable research and pragmatic experience, is that the health issues of South Minneapolis, along with other low-income communities, are closely linked to individualism. People in this industrial society, she argues, have become so individualized they plan meals alone, shop alone, eat alone, and lose any sense of connection to a broader culture, or to the knowledge it embodies.

Thus, the center's work on diabetes and food focuses on bringing people together to form closer bonds with each other. By cooking together, walking together, and learning together, she hopes lasting capacity will grow within the people who come through the center. Sister Atum knows that if the experience of coming to the center is not connecting, there is no reason to suspect her neighbors will continue to stay involved. She also understands that if lasting connections are not built among residents, it will be extremely difficult for any new knowledge to stick, or for any change to persist.

### **NorthWay Community Trust**

Across town, in another low-income neighborhood of North Minneapolis, residents who helped form the NorthWay Community Trust fashioned an important analysis of the sources of poverty — one that certainly affects food choices in their community. These residents had wearied of being identified as “substandard” individuals, often labeled as falling short in achievement. To these residents, it was clear that poverty was systemic: it was created by economic structures and reinforced by a panoply of public policies, personal habits, and intellectual assumptions among society's leaders that deepened poverty's grasp. Poverty was created by social structures, they argued, not an individual failing.

Indeed, the community has great capacity. Research performed by local associates of Harvard's Robert Putnam in 2001 found that “levels of general civic engagement are not significantly different between North Minneapolis and the suburbs.”<sup>14</sup> Moreover, when age, education and income differences were taken into account, North Minneapolis (and the city as a whole) scored higher in civic engagement than did the suburbs.

North Minneapolis was ranked especially strong in its organizational capacity, youth and school-based participation, and participation in reform politics, compared to other communities nationally. Yet it was weaker in civic activism, voting participation, faith-based participation, and team sports.

Interestingly, although 46% of higher-income residents (income over \$50,000) reported they felt effective in making the community a better place, lower-income residents (\$30,000 or less) were next most likely (at 41%), with middle-income residents the least likely at 38%. African-Americans were the most likely to feel effective (44%). “For African-Americans, civic engagement also generates more group trust,” the report added. This was not as true for Whites.

Sara Berry, economic historian at Johns Hopkins University, argued in her book, *No Condition is Permanent*, that Western aid had often backfired because policy planners failed to understand the essential strategies undertaken by African residents. Since economic opportunities on the continent were austere, and Africans had little power to shape the greater forces that affected their lives, survival depended on having strong social networks, so that someone might be your ally in the future.<sup>15</sup>

Aid givers have injected aid dollars on the assumption they were creating market-based opportunity, only to find that the Africans would invest those dollars in strengthening their supportive social networks — often giving their new income in family members, or tribal connections, or political leaders who might support, or at least not oppose, them in the future.

Minnesotans find themselves inching closer and closer to such uncertainty. Given recent financial losses in the stock market and home lending markets, along with the uncertainties of climate change, reliability of food supplies, and the impacts of globalization, Minnesotans face looming questions about the future. In this respect, the strategies of networking practiced by Africans and African-Americans may prove to be ones from which Minnesotans learn.

Indeed, the business community is already learning from low-income settings. In a study of inner-city groceries, Michael Porter of the Initiative for a Competitive Inner-City found that “New York’s inner city grocery retailers outperform the regional average by 39%.” Not only could small-size stores be more competitive, he argued, inner-city markets “represent the markets of the future.” Key to their success, Porter found, was their spirit of flexibility. They were able to adapt to changing conditions, and to anticipate changes in consumer changing needs. Forging community relationships is essential, Porter continued.<sup>16</sup>

The intrepid Minnesota pioneers of the emergent local foods movement treasure the same sense of personal loyalty and trusting relationships, even though they are immersed in lucrative and competitive markets. To Scott Pampuch, chef at Corner Table, as it was for Tim Lauer of Coastal Seafoods, “Its all about relationships.”

These personal connections allow food buyers to look for consistency in relationships, rather than in commodities. This sense of connection also allows independent chefs to buy in smaller quantities. Pampuch might consider offering a special on, say, short ribs, when Todd Lein of Thousand Hills has a surplus. “The whole system keeps working if I am helping Todd move what he has.” This places pioneers in the position of building new systems of relationships as well as new businesses. “We’re lucky in the Twin Cities to have a community of chefs and food handlers who are working together,” Pampuch adds.

This suggests that one of the key levers promoting systems change is to deepen personal loyalties among those engaged in the food system. Certainly this relationship-building has been essential background for the birth of the Experiment in Rural Cooperation (see below), the Southeast Minnesota Food Network, and the Minnesota Project's Heartland Initiative.

### **Choosing to avoid commodity markets**

Eric Klein, of Hidden Stream farm near Plainview, highlights these same themes, as he spoke to a winter conference on local economic development sponsored by Houston County, in the town of Caledonia, in far Southeastern Minnesota. "I sell 100% of my products direct," he affirms. Marketing a combination of pastured chickens, pork, and grass-fed beef, Klein sells to 15 accounts in the Twin Cities, including the Best Buy corporate headquarters (through Bon Appetit) and several restaurants (including Lucia's), at two farmers markets, and through the internet. The niche he has established is a high-quality meat from animals who exercise frequently, and following practices that conserve soil and protect water resources. "About half of my land is involved in rotational grazing," he says. He has about 55 sows, 60 head of beef, and 3,000 chickens.

When Klein started this specialty operation, he researched the options available to him and chose to avoid selling to the commodity market. "Commodity production is the easiest," he begins, because you don't have to hold to such high standards. "But it is also the least consistent market." The producer is constantly confronted with requests to lower the price. In the end, Klein says, "commodity production is usually the least profitable."

He chose what seemed to be a more promising direction: selling specialty products to a niche market. "Usually, you are assured of a floor price from your buyer," he says, since the buyer recognizes it has an interest in sharing risks with the producer, if it wants a reliable supply of products. "There are tougher standards to follow," yet this is typically rewarded with a premium price. This path also requires more advance planning, Klein adds. "You may have to line up a processor three or four months in advance, or take orders in January for fall delivery." The name of Hidden Stream farm is now featured on several restaurant menus, and Klein is turning away potential suitors. "One supermarket is crying for our products. But I have not touched it. I just can't supply that much."

Coastal Seafoods also created an alternative to the commodity market — and were so successful they not only created more options than the commodity market, but they also shifted the commodity market itself.

Pepin Heights orchard succeeded in the commodity market by offering superior quality, and by creating a niche as a distributor of other producers' apples. Yet owner Dennis Courtier feels tightly pinched by buyers who attempt to whittle down the margin at every opportunity. He says it will be difficult for local firms to prosper as long as quality is not rewarded in the marketplace.

Big River Foods, in trying to ramp up production from immigrant farmers, struggled because the commodity buyers are not willing to pay the price the growers need to launch their operations. More established growers manage to sell at lower prices, undermining these newcomers.

Thousand Hills Cattle Company is proud of the fact that “To date, we have not sold a single pound of beef as a commodity,” as Todd Churchill boasts. He knew that building a differentiated market would be exceptionally difficult, but he was able to do so through viral marketing. “People crave authenticity,” Churchill adds, “and want their purchase to mean something.” He adds that “What really has made this work, outside of the quality of our brand, are about a dozen champions who have bought our product and convinced others to do the same,” adds Lein. “None of them buy very much,” he adds. His volume to date is twenty animals per week. Yet these champions are the key. To retain its independence, Thousand Hills avoids having more than ten percent of its sales volume devoted to any one client.

“This business is all about relationships,” Thousand Hills marketing director Todd Lein explains. “My job is essentially to manage relationships.” This allows him to lean on his buyers at times. “Like it or not, we get whole animals.” It would be easy to sell simply steaks, but that is only a small fraction (about six percent) of the meat the firm has to sell. Nearly forty percent of each animal ends up as ground beef. Lein has also been known to call a restaurant to suggest they run short ribs as a special entrée, if he will offer them a lower price for the meat.

“Our concept of sales is that we provide value,” Churchill adds. “Value, real or perceived, is highly subjective. It includes the value of our production protocol, the value of our purchasing power, and the value of our customer service.”

### **Limits to competition and “free” markets**

Although the prevailing myth is that free markets and competition produce maximum benefit to the consumer, this is not how food markets actually function, according to those who were interviewed. In fact, Gardens of Eagan has helped sponsor a number of new growers, but made agreements with them to ensure that new producers would not become their direct competitors. Lunds & Byerly’s exerts gentle persuasion on the commercial producers who supply them to limit quantities to what the chain can sell, so the price will not erode away from the growers — or the grocer.

Even commodity farmers sell into markets that are shaped by special relationships shaped by concentration of power, rather than free competition. This reduces the prices producers can charge their buyers. This may benefit consumers in the short term, but also weakens rural incomes in the long term.

At the wholesale and retail level, extra payments are common. Meat processors, dairies, produce distributors, and processed foods vendors pay “slot fees” to ensure they are allocated space on the retail floor; there are indications that produce brokers pay rebates to their biggest customers to retain their business. All of these create immense barriers of entry, effectively reducing competition. This is, perhaps, the commodity market’s way of ensuring relationship loyalty.

### **Collaboration is more important**

In fact, collaboration moves the food system. Thousand Hills would scarcely exist without a collaborative relationship with Lorentz Meats. The organic produce industry might have floundered long ago if growers had not voluntarily limited their supply. Sodexo has created strong bonds with its institutional customers by offering innovative ways of cutting costs, adopting green approaches,

and featuring local foods. Coastal Seafoods has chosen to remain loyal to suppliers who deliver on quality, even if it means this means periodic gaps in supply.

Even the relatively successful entrepreneurs cited in this report, then, have applied a few of the same strategies that inner city consumers, or African aid recipients, have depended upon. They have formed relationships of trust that allow them to work around the gaps left by the imperfections of the market, and the standardization promoted by the commodity trade.

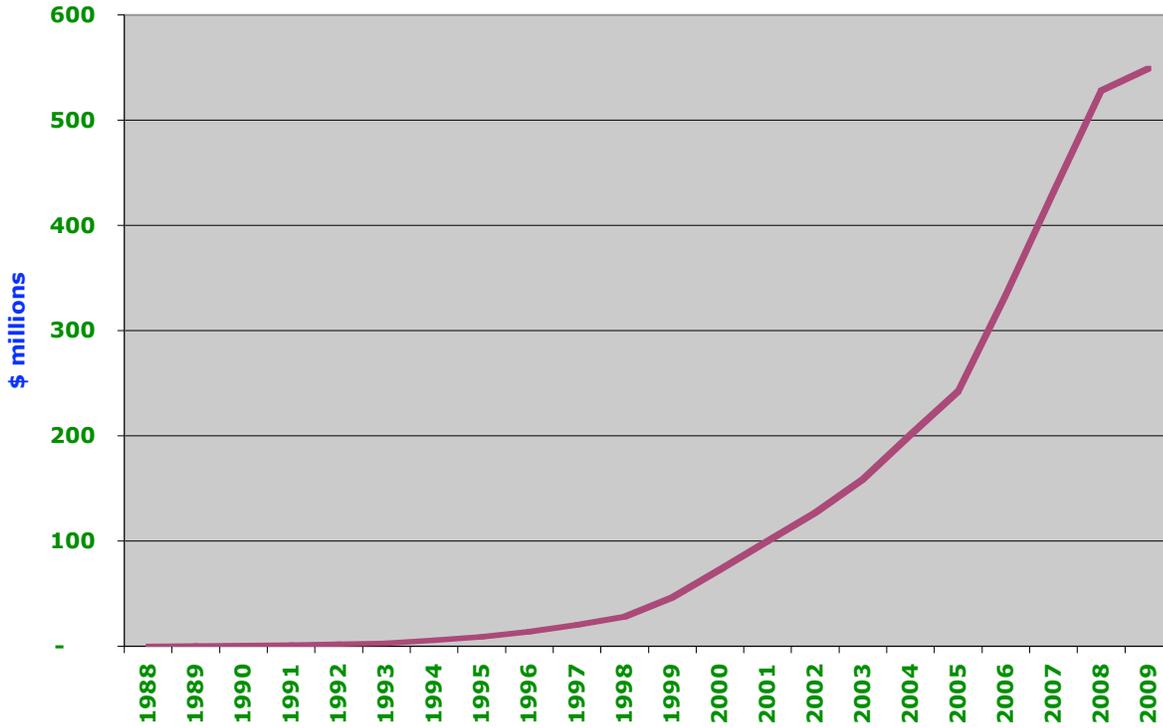
Many of these successful medium-sized producers have found the low margins and impersonal business deals anathema to the way they want to do business. Perhaps more importantly, they have found they can make more money by working around the margins of the commodity system, rather than fully engaging with it on its own terms. Many have refused offers to sell products to larger firms because they don't want to ramp up their supply to a larger level — or because they know that in the long term, the large systems will work diligently to squeeze prices down.

One grower, who asked not to be named in this report, pointed out that in his experience, as buying power has become more concentrated, profit margins have migrated to retailers. The natural growth process that creates his food product over several months creates considerable value, to be sure, yet within 36 hours after harvest, as the product moves through distribution channels, it gains more value than was created in all those months of growth. Yet those same retailers ask for even lower prices from the producer. “It’s merciless. We work with the best retailers in the country. You would not believe what they would do to lower a price.”

In this respect, it would appear that the size of larger firms may itself serve to inhibit the emergent food movement. Their size creates a need for volume that few farmers can supply. Few channels exist that can aggregate production from a number of smaller producers. The small steps needed to launch a new operation begin to be seen as too little to matter, or too expensive to afford. Organic Valley may build to an impressive \$532 million of sales within two decades, yet it took ten years to achieve scale. Once established, the firm ultimately decided not to ship milk to stores they consider too large, because their experience is that the trust does not last, and they are soon asked to reduce their prices beyond what they can afford. Even within their cooperative, Organic Valley executives have faced charges from member farmers that the firm has become “too large” to maintain its accountability to the growers — although this issue seems to have subsided somewhat. Pepin Heights had to invest considerable time and energy to train in a new buyer who is accustomed to the commodity mentality, but unfamiliar with relationship building.

Moreover, the commodity economy itself constitutes an obstacle to the emergent food movement. Interfacing with a dynamic market that demands flexibility, communication, niche specialization and higher margins, the commodity approach typically offers rigidity, rules, standardization, and constant pressure to reduce prices. Of course, certain individuals within these firms manage to break out of the commodity mentality — yet these are the exception rather than the rule, and they seldom alter the working logic of the system itself.

### Organic Valley sales, 1988 - 2009 (est)



Source: Organic Valley

#### The core dynamic of the emergent market

The local and quality foods market that is emergent is based on relationships of trust, seemingly at all levels of scale — certainly from inner-city communities attempting to wrestle with diabetes, weight, and health conditions, to buyer-seller relationships in the commodity industry.

Yet while there appears to be considerable transparency to the local-level transactions, and considerable overlap in relationships of trust, it would appear that at the larger commercial scales, these relationships are closely held to an inner circle, and certainly not transparent to the general public. Extending these relationships so that, in Michael Porter's words, large and small firms can co-exist, will be critical. Each type of firm is likely to have its own efficiencies appropriate to its niche in the market. If each can take advantage of its unique strengths, limiting competition for the sake of the efficacy and fairness of the larger food system, perhaps a stable and healthy food supply can be assured for Minnesota. It could even be argued that the purpose of large firms, in a more networked and localized food system, is to ensure the stable successes of smaller firms, as an essential innovative and resilient edge to the food system. Policy would seek to ensure this diversity is preserved.

### **The emergent market is self-organizing, yet faces obstacles**

Largely because it has been constructed as an alternative to the commodity system, the emergent food market strives to encourage flexibility and mutual accommodation — precisely what we imagine would be possible in a “free” market. Yet, rather than being built upon unrestrained liberty, this emergent food market is built on the freedom to set limits for oneself, and the freedom to work for a broader self-interest than that of any single firm, and beyond the severe limitations of a commodity market that is focused on reducing margins at every stage.

The declining returns to farmers experienced by Minnesota farmers (as shown on the charts on pages 31-32) are simply one glimpse of a deeper dynamic which exists, but which is beyond the scope of this paper to fully document. The commodity system undermines its own success by removing financial resources and choice from the participants in the food system, especially primary producers and those on the margins — farmworkers, low-income consumers, farm owners, rural communities, and smaller processing and distribution firms. All of these groups, by working for low pay or in questionable conditions, subsidize the greater food system in important ways. After decades of losses, it would be surprising indeed if these victims of the extractive economy could build a stronger economic and social foundation for themselves, and lead healthier lives, without external assistance.

Thus, this analysis of the Minnesota food system identifies the following levers that would promote systems change that could lead state residents to healthier lives:

#### **Levers for systems change**

- 1. Plan for food over the long term.**
- 2. Plan for resiliency and redundancy.**
- 3. Foster economic transactions that improve soil, water, and air quality and reduce greenhouse gas impacts.**
- 4. Protect farmland in urban, suburban and rural areas.**
- 5. Grow new farmers.**
- 6. Plan and build storage and distribution networks that create local efficiencies.**
- 7. Create “value networks” that allow large and small firms to flourish.**
- 8. Invest in those who are most vulnerable.**
- 9. Create public and private incentives for quality.**
- 10. Emphasize equity investment for emerging local firms.**

#### **1. Plan for food over the long term**

Agriculture in the U.S. was founded on the premise of creating wealth through commodity exports. Attendant policies have focused on the needs of exporters and commodity markets. Public incentives work to make these markets as efficient as possible, yet overlook the needs of the communities where food is produced and consumed.

This new type of long-term planning will be the first time in our nation’s history that such a challenge has been tackled. Although we may have to re-learn skills and techniques that were once common knowledge in the pre-fossil-fuel area, we will combine these in new ways, and use them to build lasting social and economic structures which foster long-term food security for all Americans. We can expect false starts and mistakes as we work toward this goal.

The American Planning Association has just released a food planning guide that, for the first time, recognizes that planning for safe, secure food supplies is every bit as important as planning sewage treatment or highway systems. Professional recognition of this fact is deeply welcome. Yet many of the most cogent local food plans will actually be made by citizens, with professional planners serving the role of assistants to public process, rather than by experts working in isolation.

Local, regional, and state food policy councils or their equivalent will require sustained, long-term planning with adequate data and reporting capacity to make significant impact. If they succeed in building a popular constituency, they are more likely to have sufficient clout to exercise their will.

## **2. Plan for resiliency and redundancy**

Unpredictable change is the only given as we plan for an uncertain future. A well-planned food system for Minnesota will recognize that climate change, potential outbreaks of foodborne disease, potential collapses of distribution chains, uncertain water supplies, and other situations will affect the options we will have in the future. We must plan flexibly. And we must plan systems that incorporate considerable redundancy so that a failure in one key area does not place the entire system into gridlock. We must plan as if some kind of collapse were a likelihood, not something to be ignored.

For example, if 1,000 acres is enough to feed a given community, we might plan for, say, 3,000 acres of farmland in different climactic regions to hedge our bets against hail, drought, or other potential events. If we set aside land for food, we may also set aside land for renewable energy production, forests sufficient for recreation, energy production, and carbon uptake on a community-by-community basis. We must also look for ways to extend the growing season with renewably fueled greenhouses, hoop houses, and other technologies.

## **3. Foster economic transactions that improve soil, water, and air quality and reduce greenhouse gas impacts**

The conventional wisdom has been that humans must accept some deterioration of natural resources in order to have progress. Yet the losses induced by this worldview threaten our very existence, as is witnessed in global temperature change. Moreover, alternate production regimes such as grass-feeding cattle have shown the potential to reduce soil erosion, restore water quality, promote animal health, and build wealth all at once. Renewable energy sources may promote environmental improvement, rather than degradation. Technical innovation, investment, and imaginative application that allows us to realize these potentials is essential.

## **4. Protect farmland in urban, suburban, and rural areas**

The current crisis in home mortgage credit holds chilling echoes with the farm debt crisis of the 1980s, in which the needs of lenders and distant customers took precedence over the needs of borrowers or community resiliency. Yet on a positive note, the crisis has also produced a significant opportunity to protect land on the urban fringe so that consumers can obtain food from nearby farms. Adequate farmland must be protected now.

One insight from the Great Depression of 1929: many heads of household, unable to find work, would walk to a nearby farm, working the entire day in return for a chicken, or produce items to feed their families. To have this kind of support system at a time of potential economic collapse, there must be farms that are close enough for walking or bicycling.

### **5. Grow new farmers**

Commodities will continue to be needed, although hopefully traded on more fair terms. Moreover, large-scale growers farming for a subsidized commodity system have few incentives to change to new forms of production, such as raising food for an emergent local foods movement. Many farmers are relatively old, and would have difficulty with the manual labor and discomforts of working the soils to grow new products. The most effective growth is likely to come by fostering creation of new farms. Many of these will make intensive use of small acreage. One commercial farm in Georgia currently sells \$320,000 of produce from 4.5 acres, supporting four full-time staff who work for livable wages; the Bushel Boy greenhouse in Owatonna hosts 80 full-time jobs with 20 acres under glass.

Young Minnesotans are showing significant interest in becoming food producers, and lack land. Many recent immigrants are skilled farmers who would need assistance to learn how to market in the American context. Many farms may become intergenerational, with older landowners supporting younger farmers, or hiring younger farmworkers, and turning over ownership over time.

### **6. Plan and build storage and distribution networks that create local efficiencies**

The infrastructure under which commodities and local foods are traded was designed to increase the efficiency of distant trading of food markets, under the assumption that fossil-fuel energy would be inexpensive and readily available.

Local efficiencies — systems that draw their strength from local transactions, proximity of farmers to consumers, first-hand knowledge of each other's needs, local resiliency in the face of potential breakdowns, fostering knowledge of local place, building capacities among residents, promoting healthier eating and exercise, and connecting residents into a more harmonious social fabric — have never been the primary purpose of food planning; they soon will be.

### **7. Create “value networks” that allow large and small firms to flourish**

The conventional economic concept of a “value chain” is highly useful for calculating value-added at each stage of the food chain, yet has the unintended consequence of separating producer from consumer. This separation draws wealth to the processing and distribution sectors, and away from farmers or eaters. A preferable focus would be to build localized “value networks” that foster local transactions of great efficiency — building skills and knowledge for people across the system, encouraging connections of loyalty among local residents, fostering healthier lifestyles, and recycling dollars within the community.

In such a value network, large firms may assume the responsibility for ensuring that any economies of scale they hold will be used to promote the strength of smaller firms that can be better stewards or who can assure greater flexibility.

**8. Invest in those who are most vulnerable**

Steady, long-term investment in low-income communities must be the priority for public and foundation dollars — (for example, to help food banks become centers of food production that offer livelihoods to formerly poor people); recent immigrants (incentives for farmworkers to build equity in farms where they work, or buying farms that will provide a steady livelihood); ethnic communities (promoting, for example, ethnically identified farms and distribution channels that resonate with cultural foods and celebrations and also build wealth within the community); women (who own considerable farmland already through inheritance); youth (who are building sustained interest in food production); and intergenerational farms (in which a landowner may rent land to a new farmer or look to retirement on a working farm rather than in an institution).

**9. Create public and private incentives for quality**

We have the commodity system we have largely because public incentives have created apparent efficiencies for firms that standardize and get big. If we were to shoulder the difficult task of inventing new incentives that stimulate fair trade; supply management agreements; differentiated foods, and so forth, we can shape the workings of the market so that it coincides with our goals of future resiliency and security.

**10. Emphasize equity investment for emerging local firms**

Beginning farmers, small food processors, and nascent distribution networks will require patient capital. Investors must be willing to recognize that emerging firms will not become profitable immediately, and must invest for the long term. Debt instruments will be of limited value, because they place additional pressure on a business in its early years.

## V. APPENDICES

### APPENDIX A: Grocers supplied

#### Cooperative Grocers Supplied by Coop Partners Warehouse (St. Paul)

Coop Partners sells products to 58 retail stores in Minnesota, Illinois, Indiana, Iowa, Kansas, Michigan, North Dakota, and Wisconsin, including 36 cooperatives and 22 private firms (some of which have more than one outlet). Here is the complete list of stores:

#### **Minnesota (29 accounts)**

Bluff Country Coop (Winona)  
Cook County Whole Foods (Grand Marais)  
East Side Coop (Minneapolis)  
Dan & Becky's Market (Cokato)  
Fresh & Natural (Bloomington)  
Fresh & Natural (Plymouth)  
Fresh & Natural (Shoreview)  
Good Earth Coop (St. Cloud)  
Good Food Coop (Rochester)  
Hamden Park Foods (St. Paul)  
Harmony Coop (Bemidji)  
Just Food Coop (Northfield)  
Lakewinds Coop (Anoka)  
Lakewinds Coop (Chanhassen)  
Lakewinds Coop (Minnetonka)  
Linden Hills Coop (Minneapolis)  
Lunds & Byerly's (21 stores, Twin Cities metro, through Metro Produce)  
Mississippi Market West Seventh Street (St. Paul)  
Mississippi Market Selby (St. Paul)  
Mom's Coop (Cambridge)  
Natural Harvest (Virginia)  
River Market (Stillwater)  
St. Peter Coop (St. Peter)  
Seward Coop (Minneapolis)  
Spiral Natural Foods (Hastings)  
Valley Natural Foods (Burnsville)  
Wedge Coop (Minneapolis)  
Whole Foods Coop (Duluth)  
Whole Foods Market Grand Ave. (St. Paul)

#### **Illinois (1)**

Neighborhood Food Coop (Carbondale)

#### **Indiana (1)**

Bloomingfoods Coop (Bloomington)

#### **Iowa (6)**

Breitbach's Family Market (Dubuque)  
New Pioneer Coop (Coralville)

New Pioneer Coop (Iowa City)  
Oneota Coop (Decorah)  
Roots Market (Cedar Falls)  
Wheatsville Coop (Ames)

**Kansas (1)**

Community Mercantile (Lawrence)

**Michigan (2)**

Keewenaw Food Coop (Hancock)  
Marquette Food Coop (Marquette)

**North Dakota (2)**

Amazing Grains Coop (Grand Forks)  
Hugo's Markets (nine stores in Fargo/Grand Forks area)

**Wisconsin (16)**

Back to the Best Country Store (Rubicon)  
Chequamegon Food Coop (Ashland)  
Fresh & Natural (Hudson)  
Island City Food Coop (Cumberland)  
Kickapoo Exchange Natural Foods (Gays Mills)  
Menominee Coop (Menominee)  
Outpost Natural Foods Bayview (Milwaukee)  
Outpost Natural Foods Milwaukee (Milwaukee)  
Outpost Natural Foods Wauwatosa (Milwaukee)  
People's Food Coop (LaCrosse)  
Pine River Food Coop (Richland Center)  
Purity Gardens (Barron)  
Sunflour Market (Hayward)  
Viroqua Food Coop (Viroqua)  
Wholesome Harvest (Jefferson)  
Willy Street Coop (Madison)

Coop Partners also sells to local produce distributors, including United Natural Foods, Inc. (which they regard as their main competitor), Bix Produce, Brooks, and J&J Distributing (which also has a banana ripening room that Coop Partners will contract to use). In times of short supply, any of these firms, as well as Whole Foods St. Paul, may become a source of product as well.

The coop also engages in “drop shipping” for a variety of small local farms and firms, such as Kadjean chickens, Holy Land Deli, and Organic Valley beef, for whom the costs of distributing on their own would be prohibitive. In drop shipping, orders are placed directly from the retail store to the producer, and Coop Partners only role is to handle the logistics of delivering the product for a small fee.

Coop Partners sells over 400 individual produce items. Their sources are listed in Appendix B, beginning on the next page. Most are sourced from California. Many fresh varieties have been, or could be, raised in Minnesota, although prices may not be competitive with California products until energy and shipping costs rise.

## APPENDIX B: Coop sources

### Sources of produce items sold by Coop Partners Warehouse

Note that many of these items may be purchased from a broker in one location, yet produced elsewhere (for example, a California broker may sell products raised by partners in Mexico):

#### Organic Fruits

[**Note:** products that have been, or could be, raised commercially in Minnesota are starred]

#### **\*Apples**

Arizona  
British Columbia  
California  
Oregon  
Washington

#### **Grapes**

Chile

#### **Papayas**

Hawaii

#### **Grapefruits**

Florida  
Texas

#### **\*Pears**

Oregon  
Washington

#### **Avocados**

Florida  
Mexico

#### **Kiwis**

California

#### **Persimmons**

California

#### **Bananas**

Ecuador  
Peru

#### **Lemons**

California

#### **Pineapples**

Mexico

#### **\*Cranberries**

Wisconsin

#### **Limes**

California  
Mexico

#### **Pomegranates**

California

#### **Cherries, Bing**

Chile  
Washington

#### **Mangoes**

Ecuador

#### **\*Raspberries**

California

#### **Clementines**

California

#### **Melons**

Mexico

#### **Satsumas**

California

#### **Coconuts**

Thailand

#### **Oranges**

Arizona  
California

#### **\*Strawberries**

California

#### **Tangerines**

California

#### Organic Vegetables

[**Note:** products that have been, or could be, raised commercially in Minnesota are starred]

#### **Artichokes**

California

California

#### **\*Beans, Green**

Florida

#### **\*Arugula**

#### **\*Asparagus**

Argentina

<b>*Beets</b> California Wisconsin	<b>*Fennel</b> California	California
<b>*Bok Choi</b> California	<b>*Garlic</b> California Wisconsin	<b>*Lettuce, Leaf</b> California
<b>*Broccoli</b> California	<b>Ginger</b> Hawaii	<b>*Lettuce, Red</b> California
<b>*Brussels Sprouts</b> California	<b>*Green Onions</b> California	<b>*Lettuce, Romaine</b> California
<b>*Burdock</b> Wisconsin	<b>*Greens, Collard</b> California	<b>*Mushrooms</b> Pennsylvania Wisconsin
<b>*Cabbages</b> California Minnesota	<b>*Greens, Dandelion</b> California	<b>*Onions</b> California Nevada
<b>*Carrots</b> California	<b>*Greens, Kale</b> California	<b>*Parsley</b> California
<b>*Cauliflower</b> California	<b>*Greens, Chard</b> California	<b>*Parsley, Italian</b> California
<b>Celeriac</b> California	<b>*Greens, Mustard</b> California	<b>*Parsnip</b> Wisconsin
<b>Celery</b> California	<b>*Herbs, Basil</b> California	<b>*Peas, Snap</b> California
<b>*Cilantro</b> California	<b>*Herbs, Dill</b> California	<b>*Peas, Snow</b> California
<b>*Corn, Sweet</b> Florida	<b>Herbs, Kaffir Leaves</b> California	<b>*Pepper, Bell</b> California Florida Mexico
<b>*Cucumber</b> California Mexico	<b>*Horseradish</b> Wisconsin	<b>*Pepper, Jalapeno</b> Florida Mexico
<b>*Eggplant</b> California Florida	<b>*Kohlrabi</b> California	<b>*Potatoes</b> California North Dakota Washington
<b>Escarole</b> California	<b>*Lettuce, Butter</b> California	
	<b>Lettuce, Iceberg</b>	

**Radicchio**  
California

**\*Radish**  
California  
Wisconsin

**Rapini**  
California

**\*Rutabaga**  
California

**\*Salad Mix**  
California

**Shallots**  
California

**\*Spinach**

California

**\*Spinach, Baby**  
California

**Spinach, Savoy**  
California

**\*Sprouts**  
California  
Minnesota

**\*Squash**  
California  
Florida  
Mexico  
Wisconsin

**\*Sunchokes**  
California

**\*Sweet Potatoes and  
Yams**  
California

**\*Tomatoes**  
California  
Florida  
Mexico  
Wisconsin

**Turmeric**  
Hawaii

**\*Turnips**  
California  
Wisconsin

## **APPENDIX C: Lunds & Byerly's sources**

### **Minnesota**

Afton (apples)  
Big Lake (red potatoes)  
Blaine (parsnips, radishes, root crops)  
Burnsville (vegetables)  
Elk River (vegetables)  
Farmington (strawberries, squash)  
Jordan (apples)  
Lakeville (sweet corn, apples)  
Owatonna (tomatoes)  
Red River valley (red potatoes)  
St. Cloud (mushrooms)  
St. Croix valley (apples and vegetables)

### **Wisconsin**

Bayfield (raspberries and blueberries)  
La Farge (squash)  
Rice Lake (russet potatoes)

## **APPENDIX D: Growers**

### **Growers who supply Seward Cooperative (Minneapolis)**

#### **Minnesota (19)**

Amadore Orchard (North Branch)  
BC Gardens (Belgrade)  
City Fresh (Minneapolis)  
Glen Creuziger (Bloomington)  
Farm in the City (Minneapolis)  
Featherstone Farm (Rushford)  
Forest Mushrooms (St. Joseph)  
Full Circle Organics (Lake City and Winona)  
Gardens of Eagan (Farmington)  
Glacial Acres (Sunburg)  
Glacial Ridge Growers (Prior Lake)  
Hoch Orchard (La Crescent)  
LaBore Farms (Faribault)  
Living Waters Gardens (Wells)  
Ploughshare Farms (Parker's Prairie)  
Riverbend Farms (Delano)  
Rock Spring Farms (Spring Grove, Minnesota)  
Urban Farm (Minneapolis)  
Women's Environmental Institute (North Branch)

#### **Wisconsin (9)**

Avalanche Organics (Viola)  
Community Homestead (Osceola)  
Driftless Organics (Soldier's Grove)  
Future Fruit Farm (Ridgeway)  
Harmony Valley Farm (Viroqua)  
Jack & the Green Sprouts (River Falls)  
Keewaydin Farms (Viola)  
Wis-De Farm (Westby)  
Wisconsin Growers (Mondovi)

## **APPENDIX E: Seasons**

### **Locally grown produce featured at Seward Coop by month season begins**

#### **May**

- Asparagus
- Bedding Plants
- Onions, Green
- Radishes
- Rhubarb
- Spinach

#### **June**

- Beans, Green
- Broccoli
- Cabbage
- Greens
- Kohlrabi
- Peas
- Strawberries

#### **July**

- Beets
- Blueberries
- Cauliflower
- Corn, Sweet
- Cucumbers
- Herbs
- Peppers
- Potatoes
- Raspberries
- Squash, Summer
- Tomatoes

#### **August**

- Apples
- Eggplant
- Melons
- Onions

#### **September**

- Brussels Sprouts
- Parsnips
- Turnips
- Squash, Winter

#### **October**

- Pumpkins

## APPENDIX F: Domestic Markets & Imported Produce

### Estimated U.S. consumer market for fruit and vegetables for household use:

	\$ billions
Fresh fruits	\$ 20.5
Fresh vegetables	20.4
Processed fruits	11.5
Processed vegetables	10.0

*Source: Bureau of Labor Statistics (2006).*

### U.S. fruit production (2002):

Farms: 113,649  
Acres of orchards: 5,330,439  
Sales: \$13.7 billion

### U.S. vegetable production (2002):

Farms: 54,391  
Acres: 3,698,744  
Sales: \$12.8 billion

### Minnesota fruit production (2002):

Farms: 665  
Acres of orchards: 4,148  
Sales: \$ 12.9 million

### Minnesota vegetable production (2002):

Farms: 2,774  
Acres: 225,640  
Sales: \$291 million

*Source: USDA Economic Research Service*

**Fruits, fresh or frozen: top 10 nations importing to U.S.**

*Source: USDA Economic Research Service (2006)*

	<b>\$ millions</b>
Chile	897
Mexico	769
Costa Rica	350
Guatemala	251
Ecuador	190
Canada	142
Honduras	103
European Union-27	95
Colombia	83
Argentina	74
World	3,194

**Fruits, prepared or preserved: top 10 nations importing to U.S.**

*Source: USDA Economic Research Service (2006)*

	<b>\$ millions</b>
China	203
Thailand	141
Mexico	90
Philippines	68
Canada	66
European Union-27	50
Turkey	36
Indonesia	21
Brazil	17
Chile	14
World	817

**Vegetables, fresh or frozen: top 10 nations importing to U.S.**

*Source: USDA Economic Research Service (2006)*

	<b>\$ millions</b>
Mexico	2,098
Canada	668
Peru	126
China	88
European Union-27	56
Guatemala	49
Costa Rica	41
Ecuador	22
Honduras	18
Dominican Republic	15
World	3,267

**Vegetables, prepared or preserved: top 10 nations importing to U.S.**

*Source: USDA Economic Research Service (2006)*

	<b>\$ millions</b>
European Union-27	321
China	136
Mexico	133
Canada	117
Peru	78
Turkey	39
India	38
Thailand	24
Chile	23
Morocco	22
World	1,071

**Top 10 fruit producing states in U.S. (account for 93% of sales)**

*Source: USDA Economic Research Service (2007)*

	<b>\$ millions</b>	<b>% of national</b>
1 California	10,535	59.2
2 Washington	2,163	12.2
3 Florida	1,939	10.9
4 Oregon	478	2.7
5 Michigan	414	2.3
6 New York	340	1.9
7 Wisconsin	213	1.2
8 Georgia	201	1.1
9 Texas	183	1.0
10 New Jersey	170	1.0

**Top 20 vegetable producing states in U.S. (account for 92% of sales)**

		<b>\$ millions</b>	<b>% of national</b>
1	California	8,062	40.4
2	Florida	1,649	8.3
3	Arizona	1,168	5.8
4	Washington	1,143	5.7
5	Idaho	876	4.4
6	Georgia	659	3.3
7	New York	638	3.2
8	Texas	527	2.6
9	North Dakota	501	2.5
10	Michigan	450	2.3
11	Oregon	435	2.2
12	Wisconsin	433	2.2
13	North Carolina	367	1.8
14	Minnesota	366	1.8
15	Colorado	300	1.5
16	Ohio	217	1.1
17	Maine	152	0.8
18	Indiana	151	0.8
19	New Jersey	148	0.7
20	New Mexico	144	0.7

*Source: USDA Economic Research Service (2007)*

## **APPENDIX G: Interviews**

### **SPECIFIC MINNESOTA FOOD FIRMS**

The more detailed look at the seafood, coop, and mainline distribution industries highlights several themes that will often appear in the section to follow, in which more specific structures that convey food from producers to consumers will be discussed. Inherent in this story is the difference between the commodity system, with its promise of lower prices, consistent quality and higher salaries for middlemen, with the more relationship-based and niche market channels that promise more authenticity to the consumer, higher quality standards for food, labor, and the environment, greater flexibility in responding to change, greater promise of instituting change, and higher pay for producers — yet also involve greater costs to consumers.

With this tension in mind, we will look at the food distribution system beginning with producers, moving on to processors, distributors, and retailers. Please bear in mind that each of these categories is somewhat artificial. In the interviews below we will hear from farmers who also distribute, and distributors that also sell retail, and so forth. The interconnections among various players in the system are complex. Yet by tapping the wisdom of those who deal with this complexity day by day, important issues will emerge.

### **PRODUCERS**

#### **Producer: Hidden Stream Farm (Plainview)**

Eric Klein highlights these same themes, as he spoke to a winter conference on local economic development sponsored by Houston County, in the town of Caledonia, in far Southeastern Minnesota. “I sell 100% of my products direct,” he affirms. Marketing a combination of pastured chickens, pork, and grass-fed beef, Klein sells to 15 accounts in the Twin Cities, including the Best Buy corporate headquarters (through Bon Appetit) and several restaurants (including Lucia’s), as well as at two farmers markets, and through the internet. The niche he has established is a high-quality meat from animals who exercise frequently, and following practices that conserve soil and protect water resources. “About half of my land is involved in rotational grazing,” he says. He has about 55 sows, 60 head of beef, and 3,000 chickens.

When Klein started this specialty operation, he researched the options available to him and chose to avoid selling to the commodity market. “Commodity production is the easiest,” he begins, because you don’t have to hold to such high standards. “But it is also the least consistent market.” The producer is constantly confronted with requests to lower the price. In the end, Klein says, “commodity production is usually the least profitable.”

He chose what seemed to be a more promising direction: selling specialty products to a niche market. “Usually, you are assured of a floor price from your buyer,” he says, since the buyer recognizes it has an interest in sharing risks with the producer. “There are tougher standards to

follow,” yet this is typically rewarded with a premium price. This path also requires more advance planning, Klein adds. “You may have to line up a processor three or four months in advance, or take orders in January for fall delivery.” The name of Hidden Stream farm is now featured on several restaurant menus, and Klein is turning away potential suitors. “One supermarket is crying for our products. But I have not touched it. I just can’t supply that much.”

### **Producer: Bushel Boy Tomatoes (Owatonna)**

Jay Johnson recalls the birth of a business that might have seemed implausible at first blush: to grow tomatoes year-round in Minnesota. “It was 1990. There were five of us. We built a one-acre greenhouse and decided to come as close as we could to home grown” by planting in soil.

Now, eighteen years later, Johnson is clearly proud of his firm’s achievements. “We now have 20 acres of greenhouse. We sell to 160 stores, mostly in the Metro area and Mankato. We deliver each day of the week, hitting each of our outlets 2-3 times each week. On tomatoes, we’re pretty much handling what the Twin Cities [high-end] market can bear.

With this intense production and distribution system, the firm has prospered, and now hires 80 full-time employees including six drivers and four office workers.

Key to Bushel Boy’s business plan is that “we deliver ourselves.” That way the firm gets maximum value for its tomatoes. However, this is not a rigid strategy. They reach restaurants through a daily delivery to Bix Produce, a Twin Cities produce distributor. “That is the only channel we use,” Johnson adds.

Nevertheless, transportation costs amount to a major challenge. “The limiting factor for us is that it is difficult for us to sell to a place like Worthington or Jackson” because the firm doesn’t sell enough volume to fill the truck. “We’re looking at some other product lines, like green peppers, that would help fill the load. We also see great potential in lettuce, which we can supply fresher and safer.” Indeed Bushel Boy lettuce reached Twin City stores as this report is written.

Their main competition is tomatoes are raised in Mexico. Yet Johnson sees a comparative advantage for Bushel Boy. “You have to be able to grow something you can add value to,” he adds. “It’s tough to do vine-ripened in Mexico, due to spoilage during the long shipment. You’d want to make ketchup in Mexico and bring the finished product here.”

When asked what his major challenge is, Johnson replies quickly. “We’re small. We’ve come a long way, and we’ll keep going. The key is quality employees.”

**Producer: Gardens of Eagan (Farmington)**

The Diffley family has been farming in Minnesota since 1857. Fifth-generation farmers Martin and Atina Diffley carry on that tradition. Martin began in the 1970s at his family's original farm in Eagan. However, they moved south when that farmstead was sold to developers. Late in 2007, the Diffleys retired from farming, selling their farm operation to the Wedge cooperative. The couple will continue to live on the farm; Martin continues to broker used farm equipment, and Atina will train farmers to sell to expanding markets, and continue advocacy efforts. They also will teach through The Organic Field School at The Gardens of Eagan, a non-profit organization, being developed by the Wedge Co-op. In this interview the Diffleys reflected on their deep experience in the produce industry, illustrating how produce transactions are negotiated.

The Wedge intends to own the farm business, and eventually the land itself, Martin says. Linda Halley, who was a partner in the Harmony Valley farm, now manages the farm for the Wedge.

“We’re the best-known organic farm in Minnesota,” Martin says with no trace of boasting. Supplier to most of the food coops in the Twin Cities, a featured producer at Lunds & Byerly’s, and source for large supermarkets across the metro area, Gardens of Eagan has played a crucial role in establishing the presence and credibility of organic produce in the Twin Cities markets. “We used to sell from our own roadside stand, but we don’t do that any more,” Martin adds.

In addition to these commercial channels, Gardens of Eagan also rented land, and provided mentoring to an incubating farm, Loon Organics, which runs a Community Supported Agriculture (CSA) operation — in which members invest at the start of the growing season in exchange for produce at harvest time. Loon Organics also sells at Mill City Farmers Market. After 4 years of renting and developing farm systems and markets, Loon Organics purchased its own farm in November 2008.

Yet their retirement, after more than 30 years of physical labor, came “just at the beginning of when it was getting good for us.” Martin says that the business has been growing at 16 percent per year. “Sales really changed when the grocers moved produce up to the front of the store.” Most of that growth, Atina adds, is in increased sales in existing accounts.

How was the market for organic built? “The stores that carried the flag were the coops, they worked with us to educate the customers on organic systems, and helped us create brand name recognition for our farm by using our point-of-purchase materials and by showcasing local farms in their newsletters.” Martin says. Yet prices were low in the early days. Conditions improved when the Diffleys cultivated a group of customers by developing their own retail roadside stand. Direct sales have been the most viable inroad to the consumer. Educating the consumer and creating farmer-to-eater relationships have been crucial to developing markets and committed customers.”

Martin quickly points out that Lunds & Byerly’s also expressed strong interest as early as the 1970s. “There had been enough messages showing the demand. Moreover, the old Lunds chain used to buy produce at the Minneapolis farmers market, so they saw these trends early.” Yet those direct connections waned when Lunds bought Byerly’s. “Things got more centralized.”

Private firms, he says, tended to come in later, eventually buying out some of the stores that had established the market in the first place. “Whole Foods came in when they saw a fad becoming a

trend,” Martin says. He adds that Whole Foods opened their St. Paul store with an anti-union mentality, and at times still creates havoc through policies that are set from afar. “In 2007, the parent organization in Chicago really flexed their muscles during the flood.” Atina elaborates, “They made a blanket policy that Whole Foods would buy nothing from Minnesota and Wisconsin — that included us! [Even though we were 150 miles away from the flooding]. They would not take products from the flood victims that had been harvested before the flood [and were obviously safe from potential contamination.]” While the firm later made a conciliatory gesture, this caused considerable trauma for several growers. Atina adds that Whole Foods interest in buying from Gardens of Eagan has been erratic, “depending on who was the buyer.”

To strengthen the local produce industry, Atina says, “brokers have to start thinking differently,” beyond a narrow focus on cost margins. Martin adds, “Coop Partners strives to maintain relationships with local growers.”

Larger chains like Cub and Rainbow have also played a role in limiting the Diffley’s market. “These larger chains have put a lot of the small groceries out of business. A lot of ma and pa grocers were buying local because it was the natural thing for them to do.”

Atina Diffley cautions that as larger firms enter the market, “It would not take much to glut the organic market.” Someone with forty acres of certified organic produce marketed into the Twin Cities could simply flood the market. For example, we supply most of the coops and Whole Foods stores in the Twin Cities with organic kale for five months of the year on less than two acres of land.”

This could break down the informal collaboration that has so far preserved the market for produce growers. “Twin City coops have something that does not exist in the rest of the country,” Atina says. Organic farmers have worked out relationships among themselves. Local organic farmers have traditionally not moved in on each other’s markets. Rather than seeing each other as competitors, we see California as the competition. There is a general attitude of support and commitment to create more local organic farmers and stronger local markets. “We’re not at each other’s throats. For example, we used to grow squash. Then we trained another farmer and we stopped producing it ourselves. A beginning farmer would call us up, and ask what they might grow. We pointed them to markets where we saw opportunities. Those farmers were immediately successful.”

By contrast, Martin added, many commercial (and conventional) produce growers in the suburban interface of the metro area compete in ways that drive prices down. “Many of these growers have become wealthy due to urban-edge land sales, so they don’t need the farm income all that much. But they do need to keep farming to hold on to the land [and to benefit from favorable tax breaks]. So each one will drop prices on the other.” Overall, the Diffleys say, there is a glut of conventional produce on the market, which drives prices even lower. As a result, many local producers ship their product out of state.

Unlike other growers, the Diffleys rely on written agreements with their buyers. “We have a fair trade system here between the coops and the producers. We make a written agreement with each store. We agree we’ll raise our produce to be certified organically. They agree to give us at least a certain price. We agree not to sell to anyone else, if they agree that we will be their main supplier.”

While the Diffeys welcome the expansion of the market, they are unsure how that expansion can preserve these informal bonds and collaborative agreements. “If Wal-Mart were to buy from us, we would not have enough to sell them,” Atina cautions. “I am hesitant to say what it would take, since I don’t trust a larger firm to treat farmers fairly.”

### **Producer: Hoch Orchards (La Crescent)**

To participate in this interview, Harry Hoch took time from critical winter chores, primarily trimming his orchard trees so more sunlight would fall on the most productive branches of each tree. Even with the benefit of hydraulic or air-pressure hoses to reduce the time involved, and with dedicated assistance by two interns, it was a task that Hoch estimated would consume 200 hours.

Having planted fruit vines and trees on 94 acres of orchard, woodland, and fallow fields his father had bought in the 1950s to create a small orchard, Hoch has built a small but significant business. Harry took over the property in the mid-1980s, aggressively expanded the orchard through the 1990s, then added raspberries, and a cider press. The firm is now extending this value-added approach by launching a line of fruit preserves. From this compact operation, Hoch supplies several Twin City coops with these diverse products.

Hoch has also been a forceful advocate for policies that would ensure that small growers get the benefit of new apple varieties that are being developed by researchers at the University of Minnesota. Although his production is limited — like other small growers he was able to obtain the rights to grow at most 1,000 trees of one new varietal — and his sales are restricted to Minnesota — Hoch was able to ensure some access to new strains.

Visiting the Hoch orchard was a profoundly technical education. He showed off his semi-automated cider line, which handles bulk loads of apples, runs them along a conveyor belt for inspection, washes, and conveys apples into a press. The machine was a used one Hoch purchased and modified for his barn. He fashioned this into an efficient production line so he can press in small batches with some efficiency. Mixing apple varieties as they are harvested to balance sweet and sour flavors, Hoch produces a cider that varies somewhat with each pressing. Bottling the cider into plastic containers and attaching a decorative label, Hoch places shipments into the truck for the three-hour drive to the Twin Cities, sometime sharing loads with neighboring producers.

The farm has built a solid but humble financial footing since Harry and his wife Jackie returned to the farm for good in 1997. The operation has depended on Jackie’s career as manager of a medical testing laboratory, but the business has expanded to the point that she hopes to move into full-time work on the farm within the year.

For all of this steady success, Hoch laments, “This kind of operation is not going to be around” in the future, because it is “too complicated.” As the margins have been squeezed out of the industry, even the long-standing family-run orchards that represent a regional specialty have begun to disappear. “Most apple farms will go to direct marketing,” Hoch adds, “or they will be forced to produce at a larger scale.” One larger producer/broker in nearby Elgin, Wescott, has begun to make larger shipments from the area.

**Producer/Packer/Distributor: Pepin Heights Orchard (Lake City)**

Pepin Heights would have to be considered one of the most significant food-related businesses to emerge in recent years in Minnesota. Under the visionary leadership of Dennis Courtier, the firm has grown from local orchard to a complicated business with national reach.

Probably most familiar for its sparkling cider which is available in supermarkets throughout the Midwest, Pepin Heights also has emerged as a prime distributor of apples and related products that sells to customers in 38 states. While apples sold with the Pepin Heights label come primarily from their home orchard on the ridge above the Mississippi River near Lake City, they also incorporate apples from orchards across the river in Wisconsin. Yet they also distribute wholesale apples from Michigan, Washington State, New York State, Nova Scotia, and Quebec into regional stores. An early adopter of cold storage techniques that extended the shelf life of their product, Pepin Heights (along with the Experiment in Rural Cooperation and the Food Alliance Minnesota) also worked with Lunds & Byerly's to create a scratch-baked apple pie using Haralson apples for sale at the chain's retail stores.

Like Hoch, Courtier has a keen sense of the competition and his position in the apple market. "We are a niche market," Courtier explains. "We sell high quality at a high price. It's a matter of finding retailers who will buy from us. Minnesota production is limited by the fact that there are five counties in Eastern Washington with an exceptional quality of sunlight. They can get higher yields." Right now, "it's cheaper to ship stuff." Still, he expects that in the long-term, the need to reduce transportation costs and carbon impacts may "level the playing field. We clearly see a decentralization ahead."

While local firms of the size of Wescott provide some competition, Courtier says that "Our real competition is the snack food industry, such as Frito-Lay or Twinkies. They are not only in the market but in front of kids everyday. At the end of the day, a 10-year old decides what the market is." With immense advertising budgets, snack firms can remind customers of their presence. Pepin Heights does not have this reach. "Our margins don't support spending money on marketing."

What drives success in this business, Courtier adds, is "the dedicated people who work here." Clearly, however, incisive strategies such as selling direct to retailers and positioning the business to take a share even of its competitors' trade, by packing and distributing their products, also play a key role.

Courtier has worked in a climate in which the state industry has waned. "There are only a couple of wholesalers left," he continues. "Minnesota provides a smaller percentage of state apple consumption than it did 20 years ago." As an illustration, he adds, "Total per capita consumption is 43 pounds of apples per year of processed and fresh fruit. That is about 5 million boxes of fruit each year. We produce only 600,000 boxes today." That amounts to about one-eighth of the state demand.

"We would love to expand our production," Courtier says, "but it has to be profitable if we are going to do so." However, he adds, "with the exception of the new Honeycrisp variety, for essentially every variety of apple, wholesale prices have gone down" in recent years. While for "a couple of varieties, there has been a price bounce" [upward] in recent years, the overall trend is

discouraging. Even for Honeycrisp, Courtier continues, which has experienced such strong consumer demand that prices are quite high, sales may not be fully rewarding.

While clearly Courtier has found a way to prosper enough to continue to expand his business, he sees the industry plagued by an inherent dilemma. “Actual consumption of apples is driven by eating quality. But the actual price paid by the brokers is driven by quantity.” Quality is a secondary concern. “This is the disconnect in the system. Even the upper-end retailers will jump ship” if they think they can get a lower price elsewhere.

## PROCESSORS

### **Processor: Lorentz Meats (Cannon Falls)**

Still another Minnesota firm that serves as a national leader in the emerging quality foods industry is Lorentz Meats, run by brothers Rob and Mike Lorentz in Cannon Falls. In 1997, the brothers took over their family’s retail meat shop, which their parents had run for 30 years. They expanded the firm by building a new processing plant, and began to offer a national line of sausage products. Yet the most profitable part of their business remained custom meat processing for neighboring farms.

Just as they sought ways to expand this trade, specialty meat producers were springing up in Southeast Minnesota, looking for a place to process their products. Since the Lorentz brothers’ plant was USDA certified, it offered a solid access point for national sales. Elk, bison, beef, and pork producers brought their business to Cannon Falls. Eventually, as Organic Valley built its organic beef business, it contracted with the Lorentzes for all of their Midwestern processing. Thousand Hills Cattle Company emerged naturally as an extension of the Lorentz’ meat business, as a financial consultant came to realize that demand for grass-fed beef was severely limited by the lack of broker who could aggregate production from a number of small cattle farms into a trade that would be large enough to supply regional grocery stores and restaurants. Now the Lorentzes process eight percent of the buffalo sold in the U.S.

The Lorentz’ processing business ultimately became so demanding that in 2005, the brothers sold the original retail meat store their parents had run, so they could focus their efforts. This has also allowed Mike Lorentz to dedicate some of his time to assisting meat producers and potential meat processors around the country who are energetically working to build local food trade. Mike assists in planning new processing plants, and helps farmers learn how to position themselves for local trade. He was also active in helping form a regional investment group in Southeast Minnesota, the Hiawatha Fund.

Like others who were interviewed for this report, Lorentz knows his industry intimately. He speaks with a persistent drive and humility that demonstrate his grasp of the obstacles in front of his firm. “Most of the big processors can take an animal from the kill floor to packaged product for less than two cents per pound,” he explains. “The cost for a small niche operation like ours is 35 cents per pound.”

To some people, this might seem like an insurmountable obstacle. Yet even given this price spread, the Lorentzes have fashioned a multi-million dollar business. The answer involves connecting to

consumers who will demand and pay for the higher quality product, negotiating the financial dealings inherent to the industry, and offering reliable service.

More than eighty percent of the nation's beef is processed by the four largest firms: Tyson, Cargill, Swift, and National Beef, which can process up to 94,000 head of cattle per day. A smaller processor, Dakota Beef, is located in Fairmont, Minnesota. This commodity beef is shipped to a distribution center such as J&B wholesale, Super Valu, Nash Finch, or McLain, Lorentz adds. These distributors will take another five cents per pound or more for brokering to retail outlets. They might also pay slot fees — payments to the retail chains that assure their product will be given shelf space at the meat counter. "When I first started," Lorentz continues, "I was bitter about slot fees. Now I believe it's a legitimate cost of doing business. But you gotta pay for it."

Lorentz processes for diverse channels. Beef he processes for Thousand Hills is delivered across town to their warehouse for distribution, or shipped directly from the Lorentz plant. Organic Valley takes the processed meats to their new state-of-the-art warehouse in Cashton, Wisconsin, from where it is distributed to retail stores. He might sell directly to a chain such as Kowalski's or through a distributor designated by the retail chain, or through a distribution company. "The big four distributors are Sysco, U.S. Foods, Reinhardt, and Upper Lakes," Lorentz adds. Smaller logistics firms like Bon Appetit, Sodexo, or Aramark carry the product to restaurants, colleges, hospitals, or other institutional accounts.

In the intense negotiations that result in deals with brokers and retailers, processors like Mike Lorentz are required to define their "program" for selling meats. "A program is basically how you do business. The broker is essentially asking, 'how do you make it easier for me?'" When Lorentz defines the term of his "program," he is spelling out what he will pay for space on the grocers' shelves, what kind of discounts he might offer under what circumstances, how his product will be delivered to the grocer, what special promotions will be run, and so forth.

"When you are selling beef and pork," Lorentz adds, "You are up against the big guys. They can deliver what anyone wants right when they need it." The program has overcome the broker's desire to simplify his day by trading through that commodity system. Added on is the fact that organic beef costs more to produce, and involves higher processing cost.

One thing that convinces brokers to devote this extra attention is consumer pressure. "The best way to expand the market is to build a grassroots movement so that consumers are asking their retail store, 'why don't you have this product?' If Green Mill [a restaurant chain] wants our beef, then Sodexo [a distributor] wants it."

Lorentz summarizes that the processing industry requires three key elements: (1) a pool coordinator who knows livestock who can aggregate supply; (2) a capable processor, and (3) a distributor. Capacity is not the issue, Lorentz argues. "We don't have a lack of productive capacity; we have a lack of imagination."

"People say we have to de-commodify" the industry, Lorentz adds. "Yes, we do, but our world is set up to favor commodity distribution." Until we change that infrastructure, the rules of the commodity system will dominate.

### **Processor: SnoPac Foods (Caledonia)**

Although relatively unknown to most Minnesotans, the Caledonia firm SnoPac has established a solid niche in the organic produce industry. Known to Twin Cities coop shoppers as a reliable source of frozen organic fruit and vegetables, the firm sells to stores throughout the Midwest.

“Coops are our main market,” says executive Pete Gengler, who took over the reins of this family business several years ago. The firm also packages private labels of frozen produce for several chains.

“Our production is not so much for our brand as for the private labels,” Gengler adds. “This is the area of our largest growth. Yet these private label products still compete with our own.” He estimates it might take a large advertising campaign, costing about \$10 million, to turn the tide toward his own product.

A few years ago, the Genglers expanded into a larger factory with state-of-the-art flash freezers to boost output. This allows them to pack about 20 different vegetables from 30 local farms, as well as blueberries, strawberries, and cranberries from Wisconsin and occasionally Michigan.

The hallmark of SnoPac’s contracts with growers is flexibility to the needs of each individual farm. “Every situation is different,” Gengler adds. “We may rent out the land from the farmer, or pay per acre produced, or per pound harvested.”

“For vegetables, we try to buy from less than 50 miles away, to preserve freshness,” Gengler says. Yet this has become increasingly difficult in recent years as the price of grains has risen with demand for ethanol. This entices some growers to raise grains, and also places upward pressure on land rents. This has forced SnoPac to increase his land payments for 2008 to keep producers in his supply stream. “I’ve been having to buy peas since we can’t get enough land near our factory.” This puts Gengler in a bind since his buyers resist paying higher prices, since they all work to keep their margins as low as possible.

He lists competition for land as his primary challenge right now, along with the related issue of finding growers who will meet his quality standards. Third, he is concerned about concentration of distribution markets. “We started with 20 distributors. Now we are down to a much smaller number.”

He has also witnessed significant changes in the frozen produce industry in Minnesota in recent years. “I’m really surprised by the changes,” Gengler adds. Yet the structure of labor for the industry has also changed substantially. While packing once was a tiring but reliable seasonal job for small-town youth, this has become less attractive to youth. Many packing houses also rely heavily on migrant labor, and have built permanent housing for this seasonal work force. Gengler tries to rely on local labor. “We used to have a maximum of 20 local youth working for us each year,” Gengler said, “Now, with automation, our need for labor has been cut back. Also, we have tried to create year-round jobs.”

All of these forces — land costs, labor availability, number of willing growers, and limited distribution channels — conspire to limit the amount of produce that can currently be produced in

Minnesota, even though growing conditions are excellent for crops like corn, peas, and carrots. “I don’t see right now that they would stop importing fruit and vegetables,” Gengler concluded.

### **Producer/Processor: Cedar Summit Farms (New Prague)**

This report opened with an account of the creative leap Dave and Florence Minar took, six years ago, when they launched Cedar Summit Farms. Their grass-fed dairy business has won loyalty from many consumers, but the family still looks forward to a day when they turn the corner of profitability. The Minars offered seasoned suggestions for how to start such a business.

Key to their decision was the availability of a pre-established milk processing technology. This was not available in the U.S. dairy industry; they had to turn to Israeli manufacturers to purchase it. “What attracted us was the package of services they offered,” Dave recalls. The manufacturers insisted the Minars bring all the contractors together, along with all family members, for a single meeting. They knew that coordinating their work would be essential to success.

Minar further brought in state inspectors well in advance, to make sure that what they planned to do would meet state requirements. He sought out potential buyers before taking the financial plunge, wanting to make sure there would be a market.

“It was not until after we signed the contract, and sent money, that they made the equipment for us,” Minar adds. When it arrived, a factory installer came to supervise the installation — but he insisted local contractors do the work, so someone nearby would know the production system, to ease maintenance. Although the Minars were invited to a 10-day training in Israel to learn how to better work the equipment they had just purchased, security concerns prevented their trip.

“If someone were to do this again, my first question would be, ‘What is your market?’” Dave says. Next, he pointed out, it takes a solid team of people to make the factory work. The Minars also feel blessed that one of their sons was an expert in bacteria and sterilization. Other children had experience in accounting, computers, graphic arts, and management. Still, the couple warns, “You have to have \$250,000 beyond the cost of the equipment” just to start the bottling process. Getting credit was not easy — “All of the bigger banks told us, ‘We don’t do ag loans,’” Dave adds. Some smaller lenders stepped forward, but it mattered a great deal that the Minars could point the lender to a successful on-farm processor in New York State, to show that the system was workable.

One local official opposed their plan, since he believed on-farm processing was “stupidity.” Yet other county officials intervened and offered their support.

Once the milk arrived at the grocers, Florence added, one of the coops called to say they could not keep the product on the shelves. Now, in addition to sales at coops, Cedar Summit is featured at Kowalski’s Lunds/Byerly’s, and Festival Foods. They also sell to Michigan’s Upper Peninsula, Viroqua and Milwaukee, Wisconsin, and several locations in Iowa.

“Our biggest concern is the supply of milk,” Dave adds, noting especially the seasonal cycles that reduce milk production in the early spring.

Still, the Minars had difficulty getting access to grocery shelves with some of the larger chains, which typically turn over their shelf space to outside vendors to stock. And they have to be watchful, since if they don't visit each chain store every week, a competitor may have taken over their shelf. "We won't pay slot fees," Dave Minar adds, referring to the payments many farmers and brokers pay to assure their products are guaranteed shelf space.

Although the farm has yet to reach profitability, the Minars are confident it will. They are proud of the fact that a younger generation will continue the business. As Dave puts it, "We're not making any money, but we're having a blast."

## **DISTRIBUTORS**

### **Distributor: Big River Foods (Marine on St. Croix) — Now part of Big River Farms**

In a bold effort to introduce immigrant farmers to Twin Cities produce markets, as well as to create a cooperative structure that will preserve the economic influence of these growers, Minnesota Food Association launched Big River Foods two years ago. While still a very fledgling effort, Big River emerged at a propitious moment amidst rising demand for local foods. Their buyers include Chipotle, Lunds & Byerly's, Kowalski's and Cub Foods Stillwater. They will add H. Brooks Produce this year.

Representing 11 Hmong and Latino growers, Big River also has launched a partnership with the existing May Farm CSA [Community Supported Agriculture] operation to build a membership base. "This CSA looks promising because it allows us to be responsive to our consumers, and cuts out the middlemen" so farmers get maximum value, according to coordinator Teresa Cuperus.

Still, she has concerns about the viability of the general CSA model to the growers, since local produce is not always accessible or affordable to limited-income consumers.

Big River focuses on a small selection of products to begin with, including heirloom tomatoes, grape tomatoes, green bell peppers, and slicer tomatoes. This year, they will add snap peas, green beans, and bok choy to their repertoire. They are also transitioning to organic production. In 2007, Big River sold a total of \$50,000 of produce.

All of these growers have full-time jobs in addition to running their commercial farm operations at MFA's farm at Wilder Forest. Some work nights so they can farm during the day. Since they are limited to three years at the MFA farm, so that the training opportunity can be spread to more growers (though this policy is being reconsidered), there will be substantial turnover in growers — though Big River intends to continue representing those who graduate. Obviously skilled and highly motivated, some growers have already left to purchase their own farms in Wisconsin.

Many of the immigrant farmers arrive in the U.S. with deep experience in producing vegetables. Yet they may have much to learn about selling to the Twin Cities market. Cuperus says she was "not prepared for amount of training needed for the farmers in wholesale production and sales, especially

the post-harvest preparation of packing and grading.” Big River packs for a three- to four-day shelf life in clamshell packs that are labeled with each farm’s individual name.

Cuperus also outlined the diverse distribution channels through which their product is traded. “When we sell to Lunds & Byerly’s we are dealing with their own produce broker, Metro Produce. We sell to the Wedge directly, however, if we were able to meet capacity, we would sell through Coop Partners. We also sell direct to Cub Foods, but would sell to their distributor if we were able to meet capacity. Kowalski’s works through a single firm, Russ Davis. Chipotle uses Wholesale Produce Company. We contract with Edina Couriers to deliver to these distributors. They have their own refrigerated trucks, and they have worked a great deal with small farmers in Southwest Wisconsin. They have been great to work with, since they are so flexible.”

The original mission of Big River was to attract institutional buyers such as hospitals, schools and colleges. “That has been a huge struggle, because they don’t want to pay the price we need,” Cuperus adds. Big River prices can be two to three times what institutional shoppers are used to spending.

While Cuperus is convinced that local foods will prove to be the most economical option in the long run, she sees an immense need for investment capital to bring that promise to fruition. “If we want our food system to be competitive, distribution is the huge thing we need. I don’t want to be like California, with their large-scale systems, since there is no loyalty to the consumer. Yet if you think about how easily they can move food — well, we’re not even close.”

Consumer education is also important, she adds, yet “that only goes so far. It works if you have money to spend,” but a large number of Twin Cities consumers don’t earn enough income to support the needs of local farmers.

Ultimately, Cuperus adds, “We have a huge need for a ton of new farmers.”

*[Cuperus recently moved to Madison, Wisconsin, to work with the Department of Agriculture, Trade and Consumer Protection as coordinator of the state’s Buy Local, Buy Wisconsin program.]*

### **Distributor: Minnesota Emergency Food Network (Minneapolis)**

A key distributor of food to the 450,000 residents of the Twin Cities Metro Area (16% of the population) who may at some point during the year not have enough to eat is the Emergency Foodshelf Network (EFN). Tim Barnes, executive director, points with pride to the fact that Minnesota has been a national leader in creating an efficient food distribution system serving low-income clients.

Much of this efficiency was created by building collaborative relationships among the various organizations and agencies in the system. “We held meetings for the directors of all of the food shelves. We set specific boundaries on who would be served, and who would not, by each. We planned for the placement of freezers and coolers that would create the most efficiency. We instituted a computer tracking system. Although it did not work well at first,” it helped the network pare its operations, especially by verifying who clients were.

Still, the benefits to collaboration were real. “We now have 70 items that we buy at wholesale prices or less,” Barnes adds. “This saves us \$500,000 or \$600,000 per year, and reduces transport costs. Still, arranging this was a delicate process, since EFN has no formal power over the network, which consists of independent foodshelves who joined voluntarily, and relinquished no control to EFN.

Foodshelved in the network are also changing how they work with clients. “For years, you could only visit a food shelf once each month,” Barnes continues. “The network is changing so people can pick up more fresh and perishable food more often. We are also moving more into culturally specific foods, and paying more attention to working with our clients on hygiene.”

The geography of hunger is also changing. “Hunger rates are doubling in the suburbs,” Barnes says. Rates are steady in the inner city, but people are not rising out of poverty, either. “We still see many of our people one paycheck away from crisis,” he cautions.

The food shelves also face changing supply channels. Whereas many of the early years were characterized by food donations, these donations are either drying up or are inadequate to the demand. “Ninety percent of the produce we get donated is already on the fringe of spoiling,” Barnes says. Frozen or packaged foods were once donated, but as corporate suppliers encounter greater scarcity, these supplies are waning. Moreover, donations often served the needs of the donors — to unload excess supply, or to obtain tax breaks — than the needs of the consumers themselves. “There are too many incentives for corporations to donate junk foods,” Barnes warns.

To assure freshness and more choice over supplies, the food shelves are increasingly moving into purchasing food. Currently, about half of their supply is purchased, with another 25% from Second Harvest, and the remaining 25% donated. Yet this carries its own complications, placing them more at the mercy of market forces. Food prices are rising, supplies are limited, and transportation costs have also escalated. “One year ago, it cost us \$2,400 per truck load to ship food to our warehouse. Now it costs as much as \$4,600 per truckload,” Barnes adds.

“We’re very committed to providing fresh fruits and vegetables, and we don’t believe the best way is to wait for them to arrive” he continues. “We often get produce from Arizona two weeks before the stores get it. If we don’t have quality produce we are missing the boat.”

The network also welcomes a new supply of fresh foods from Mexico, where the nonprofit Food Producers of America has packaged truckloads of surplus bell peppers, melons, and tomatoes for shipment from the border regions near Arizona and New Mexico. These loads can be obtained at no charge for food shelves that will pay for trucking to their facility. Since this arrives during winter months when few fresh foods are available in Minnesota, Barnes is very excited about its potential. He hopes to procure one million pounds of fresh produce through this “Lost Harvest” program. Since this also promises to reduce what Barnes said was the current need to toss 50 million pounds of unused produce into landfills, it also promises waste reduction. Yet clearly, this channel also poses certain dilemmas, raising concerns about why Minnesota’s poor obtain these foods rather than low-income Mexicans.

Barnes says the major challenge facing low-income Minnesotans is “access.” To respond to that challenge, Barnes hopes to work with inner-city convenience stores to carry fresh produce distributed by the food shelf network. “People who walk to the corner store need other choices for food,” he says. The network is also considering opening their own grocery stores tailored to low-

income consumers. “This is all about giving families new choices,” he continues. The network is also beginning to buy partial shares in CSA farms for low-income families.

Barnes adds that the food shelf network has worked closely with low-income communities. Through the University of Minnesota, they partnered in an effort to foster immigrant farms. While that program is now “defunct,” Barnes has also worked with Somali stores. “We even brought a container of foods from Africa for them,” he adds. Yet the retail prices at these stores, he feels, are too expensive for many consumers.

Future directions for the food shelf network include creating a mobile food shelf that will take food to seniors’ high rises, and all seasons’ food reserve, and expanding the “Fare for All” program which the network took over seven years ago.

### **Distributor: Thousand Hills Cattle Company (Cannon Falls)**

Recalling Mike Lorentz’ comment that three capacities are required to create a solid presence in the meat markets, it is hardly surprising that Thousand Hills Cattle Company grew out of Lorentz’ operation. Todd Churchill, CEO of Thousand Hills, had worked in Lorentz’ firm for several years until they came to a mutual realization that the market for selling grass-fed beef would be limited unless someone arose to aggregate supply from the hundreds of small producers scattered around the region, and represent them to restaurants, supermarkets, and other buyers. Churchill decided this would become his mission.

“Over twenty farmers sell us fattened cattle,” Churchill begins. These producers are scattered in Minnesota, Wisconsin, Iowa, and Nebraska. Another ten to fifteen farms supply calves, typically from the Sand Hills of Nebraska and Montana range lands. “The best quality calves come from areas where the soil is not tilled, and there is less than sixteen inches of rain each year,” Churchill explains. “But it is hard to finish cattle when it is that dry,” so bringing them to Midwestern pastures makes sense.

Thousand Hills’ sales manager, Todd Lein, who refined much of his marketing acumen in a former position selling produce for the Southeast Minnesota Food Network, says the firm sells shelf-ready plastic-wrapped packages as well as boxed primal cuts to 50 retail stores, including Kowalski’s Fresh and Natural, and most Twin City coops. They also count 30 restaurants as customers, including Scott Pampuch of Corner Table, and J.D. Fratzke, formerly head chef at Muffuleta, who recently opened a steak restaurant in East St. Paul called The Strip Club, and others through Bon Appetit. Thousand Hills sells direct to St. Olaf, Carleton and Macalester Colleges, and through Sysco to the University of Minnesota.

“What really has made this work, outside of the quality of our brand, are about a dozen champions who have bought our product and convinced others to do the same,” adds Lein. He then listed the names of food buyers for the firms mentioned above. “None of them buy very much,” he adds, and his volume to date is twenty animals per week. Yet these champions are the key to what Lein calls their “viral marketing” strategy. “People crave authenticity,” Churchill adds, “and want their purchase to mean something.”

“This business is all about relationships,” Lein explains. “My job is essentially to manage relationships.” This allows him to lean on these buyers at times. “Like it or not, we get whole animals.” It would be easy to sell simply steaks, but that is only a small fraction (about six percent) of the meat the firm has to sell. Thirty-eight to forty percent of each animal ends up as ground beef. Lein has also been known to call a restaurant to suggest they run short ribs as a special entrée, if he will offer them a lower price for the meat.

Last fall, Thousand Hills unveiled a grass-fed hot dog, which sold well. They hope to expand into jerky and summer sausage, as well as a pulled beef and sloppy joes. Churchill is proud of the fact that “To date, we have not sold a single pound of beef as a commodity.” While their primary product is fresh, they also sell frozen meat to some customers. Nor does Thousand Hills want more than ten percent of its sales volume going to any one client, to retain their independence.

Churchill adds that the firm does as much of its own distribution as possible. “No one wanted to distribute at the beginning,” he says, since producers often don’t see themselves as marketers. “Yet we already had a premium product, and we had to pay more to the farmer and more for processing.” So trucking their own products helps Thousand Hills protect its added value. With only one truck and one driver, the firm has to plan its distribution routes carefully.

“This is why farmer coops typically fail,” Churchill adds. “They don’t have the resources to establish a broad base of different customers.”

## DINING ESTABLISHMENTS

### **Café: Common Roots Café (Minneapolis)**

A small, innovative café in south Minneapolis, Common Roots Café has become an exemplar of sourcing local foods on a menu that is built around everyday food needs. Owner Danny Schwartzman sees his business as community center as much as a place to eat, and has adopted an aggressive strategy of opening the space up to local community groups. Over 175 meetings have been held in the café over the past year, Schwartzman says. An African-American food-buying club makes Common Roots its drop-off point.

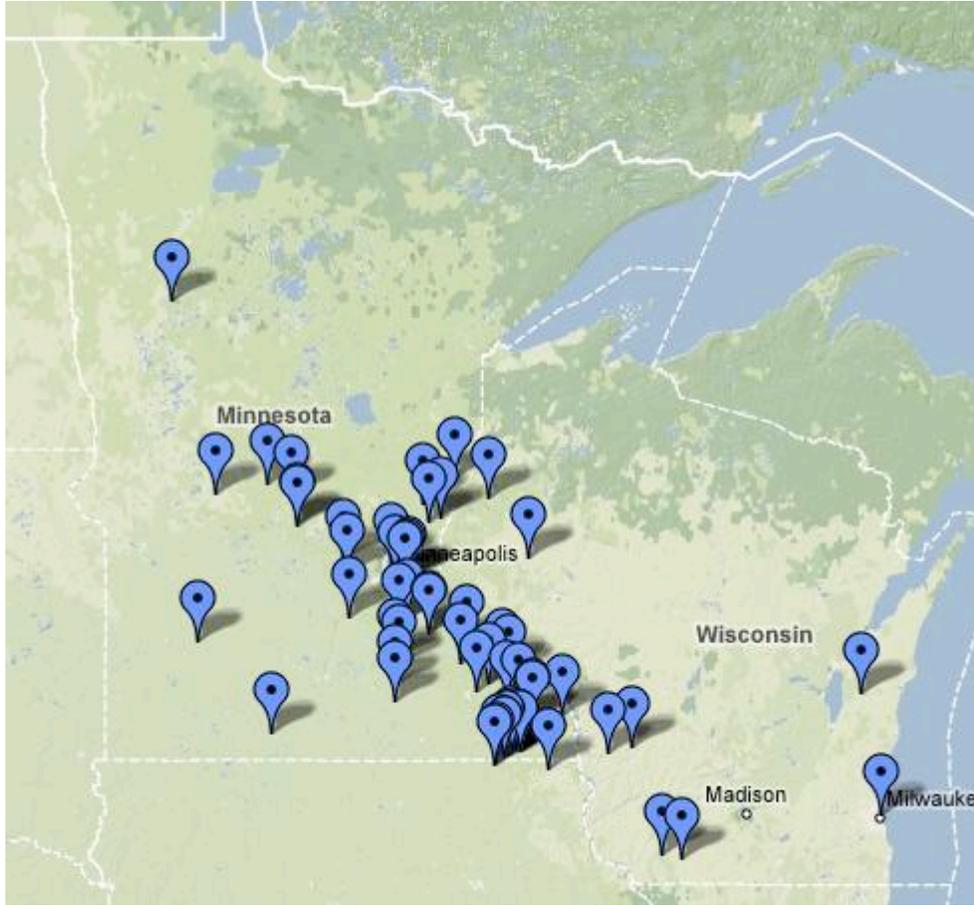
Moreover, Schwartzman keeps careful track of his food purchases, and now calculates that 90 percent of the food served in the café is sourced from some 46 farms in Minnesota and Wisconsin. He places an interactive map of these farms and processors on the café web site (<http://www.commonrootscafe.com/ourfarmers.htm>). As the map shows, the “foodshed” of Common Roots Café is determined in large part by the freeway and highway system that links the city with Southeast Minnesota, Southwestern Wisconsin, and Northwestern metro farms. Many of the farmers appear at the café to educate consumers about their operations and their products.

His menu features home-baked bagels made with locally milled organic flour, fair-trade coffee, grass-fed beef, organic produce, and organic beers. Common Roots purchases these foods through Coop Partners, Southeast Minnesota Food Network, Classic Provisions, and Bix Produce. In addition to featuring locally produced foods, Schwartzman offers locally processed, nonregional organic, and fair trade products — which combined account for almost 80 percent of the foods he purchases. Much of his meat is sourced from Thousand Hills, his milk from Cedar Summit Farms, and chickens and eggs from Schultz farm. Still, “There is a huge gap in local options,” Schwartzman cautions.

“We don’t just dabble in local and organic foods, or reserve it for the priciest parts of our menu. Everyone should have access to good food from farmers they know, and we work in the kitchen and in the community to make it happen,” Schwartzman says.

The café’s commitment to sustainability goes further than its food menu, he adds. The café formed a partnership with Eureka Recycling and has composted over 17,500 pounds of waste. During the construction of the café recycled and environmentally sensitive materials were used whenever possible. Salvaged lumber and salvaged lighting were critical resources for construction. An on-demand water heating system and highly efficient ventilation system were installed to further reduce monthly energy costs.

Schwartzman has even bigger plans for the future. He has invited an architect to submit rough sketches for rooftop gardens that might supply herbs and vegetables to the kitchen below. He is considering installing a greenhouse on the roof as well, both to extend the season for produce he would raise for the café, but also to serve an educational facility for inner-city youth.



Map of Common Roots Café's supplying farms and processors  
*Source: courtesy of Common Roots Café*

### **Restaurant: Corner Table (Minneapolis)**

Scott Pampuch, owner and lead chef of Corner Table, is one of the champions identified by Thousand Hills in its quest to build market visibility in the Twin Cities. Just how much of a champion was evidenced in Pampuch's presentation to the "Speed Dating" event sponsored by Renewing the Countryside in January. The event was held to connect local farmers with restaurants who might want to buy local products.

Pampuch offers the following advice to chefs who want to source local foods. "make contacting local farmers your habit," he says. The week before the event, Thousand Hills' Todd Lein had shown up at the restaurant unexpectedly to discuss a new idea. It was a Friday afternoon, probably the worst time to surprise a chef who is preparing for the weekend. Yet, as Pampuch explains, "We've known each other seven years and that is why it works."

Pampuch explains that he started to buy grass-fed beef from Lein when Lein was the representative of Southeast Minnesota Food Network before Thousand Hills got underway. When Lein shifted to

the cattle company, Pampuch says, he remained loyal to Lein. “We shifted our purchases from Southeast Minnesota to exclusively carrying Thousand Hills. It’s because of the relationship we’ve built.”

As Pampuch sees it, it is important to move away from “the salesman mentality. Find someone you can talk with,” he advised chefs. “Its all about relationships. The biggest thing about local food is that we have to know what we’re expecting.” If the grower makes a phone call ahead of time, the chef can adjust to changes.”

To farmers, he says, “Don’t be afraid to bring five pounds of something you have. I’ll use it if I can. My first question to a farmer is, ‘what do you have?’ He does not mind being reminded by Todd Lein and others that they have to sell whole animals, not just the premium steaks. “The whole system keeps working if I am helping Todd move what he has.”

“We’re lucky in the Twin Cities to have a community of chefs and food handlers who are working together,” he adds. As an example, he told a story of running a special holiday menu at which he featured lamb. He purchased the primal cuts, but needed to cut them into portion sizes. A local butcher shop simply allowed him to use their shop to prepare the meat himself.

Pampuch continues that he likes to give credit where it is due. “If the customer complements the food, my first response is to show them where the farm is that it came from.”

## **RETAIL GROCERS**

### **Retail Grocer: Lunds and Byerly's (21 stores in the Twin Cities)**

A family-run enterprise with deep roots in the Twin Cities, Lunds and Byerly's are leaders in local food sourcing among commercial supermarkets, and appear to be national leaders as well. This is a tribute to both the fact they are an independent, relatively small company, and also that they have long known local growers by shopping at the Minneapolis farmers market. By some accounts, they were paying attention to local foods as early as the 1970s. Moreover, all Lunds and Byerly's proudly advertise the number of organic products for sale at the store (often more than 100).

Rick Steigerwald says the firm is unique among Twin Cities grocers since it has its own distribution center for handling produce. It partners with Metro Produce to handle logistics for shipments to its 21 retail stores.

"We always buy local produce when it makes sense," Steigerwald says. "We feel great loyalty to local growers." All told, he says about 30 local farmers supply them. Peppers, carrots, potatoes, tomatoes, apples and sweet corn are among the featured products, but the grocer also carries locally produced herbs and squash, among other products.

Steigerwald says the firm only recently began to publicize their local sales. "We have bought local for years, because the price and quality were good," he continues. "About three years ago, we decided to start telling our story to our customers."

Among the farms listed on the company's web site as suppliers of local produce are:

- Axdahl's Garden Farm & Greenhouse
- Big River Foods
- Bushel Boy Farms
- Costa Farms
- Dehn's Garden
- Fireside Orchard & Gardens
- Gardens of Eagan
- Malamen Gardens
- Pepin Heights Orchard
- Vine Valley Farm
- Joe Zwiec Vegetables

The store also features information about each grower with signs on their shelves during the season. Of course, the firm also buys produce from many other domestic sources.

A list of some of the places where local growers raise food for the firm is listed as Appendix C, above. While he would not share their outstate sources, Steigerwald did say that sources include California, Florida, Oregon, Washington, Iowa, and Wisconsin. "It changes all the time. We have to go where the crops are."

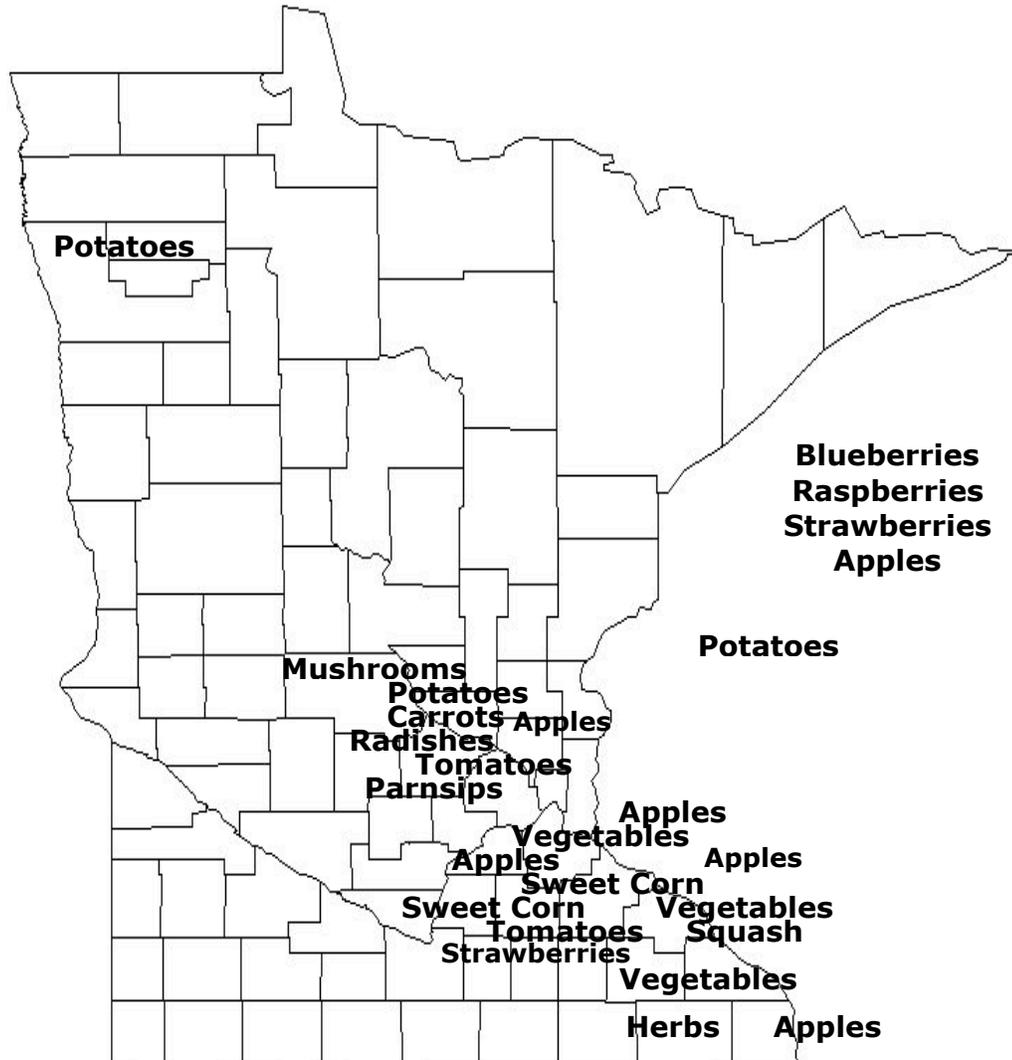
Lunds and Byerly's has also made a commitment to offer information on country of origin for foods that are imported. Foreign sources of produce include Argentina, Chile, Israel, Mexico, Spain, and New Zealand.

“Our policy is threefold,” Stiegerwald adds. “First, we listen to our customers. Second, we buy local when it makes sense. Third, we establish relationships with growers. If we want to add a new product, we start by asking them if they would like to grow it. Most effective, we have found, is to talk with the growers one-on-one. It is always a two-way dialogue.” While Lunds and Byerly’s can tell the growers how much they expect to sell, the firms asks the growers what they think they can grow. “We say to them, ‘You know what you can do.’ We leave it to them to estimate the volume they want to deliver.”

*Several other Twin City retailers refused requests for an interview.*

## Some locations where fresh produce is raised commercially in Minnesota & Wisconsin

(This is not an exhaustive listing — for illustrative purposes only)





## Endnotes

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- <sup>1</sup> Pirog, Rich, *et al* (2006). "Developing a Vibrant and Sustainable Regional Food System: Suggestions for Community-Based Groups," Aldo Leopold Center for Sustainable Agriculture, Regional Food System Working Group, Iowa State University, August. Available at <http://www.leopold.iastate.edu/research/marketing.htm>.
- <sup>2</sup> Sales estimates are from USDA Economic Research Service for the year 2006.
- <sup>3</sup> Green pea data is from 2006, since sales totals were not reported in 2007.
- <sup>4</sup> Carrot sales data is from 2006, since sales totals were not reported in 2007.
- <sup>5</sup> Pilgrim's Pride declared bankruptcy in 2008.
- <sup>6</sup> <http://www.allaboutapples.com/orchard/mn.htm>.
- <sup>7</sup> Gardner, Bruce L. (2002). *American Agriculture in the Twentieth Century: how it flourished and what it cost*. Harvard.
- <sup>8</sup> Parker, Russell (1976). *The Structure of Food Manufacturing*. Federal Trade Commission staff report published by National Center for Food Manufacturing (NCFM) as Technical Study Numbers 8, 25, 66, and 221.
- <sup>9</sup> Cronon, William (1991). *Nature's Metropolis: Chicago and The Great West*. Norton.
- <sup>10</sup> Walters, Jonathan (2001). "Spoiled Food Federalism" in *Governing Magazine* (formerly *Congressional Quarterly*), May, 12.
- <sup>11</sup> USDA (2009). "Food Security in the United States." <http://www.ers.usda.gov/Briefing/FoodSecurity/>. Viewed August 26, 2009.
- <sup>12</sup> Wellman, N. S. et. al (1996). "Elder Insecurities: Poverty, Hunger, and Malnutrition." American Dietetic Association hunger line.
- <sup>13</sup> USDA (2000). *A Millennium Free from Hunger*. U.S. National Progress Report on Implementation of the U.S. Action Plan on Food Security and the World Food Summit Commitments, 2. See also World Hunger web site, [www.worldhunger.org/hun\\_pov/default.asp](http://www.worldhunger.org/hun_pov/default.asp). Viewed April 12, 2002. The National Association of Secondary School Principals counted 53 million public and private school students in the U.S. in 2000. See [http://www.principals.org/publicaffairs/views/nxt\\_pres\\_edwk11100.htm](http://www.principals.org/publicaffairs/views/nxt_pres_edwk11100.htm), viewed July 6, 2002.
- <sup>14</sup> Rahn, Wendy (2001). "A Survey-Based Assessment of Community Life in North Minneapolis: A Report to the Minneapolis Foundation." October 7.
- <sup>15</sup> Berry, Sara (1993). *No Condition is Permanent*. University of Wisconsin Press.
- <sup>16</sup> Initiative for a Competitive Inner City (ICIC) & The Garfield Foundation (2002). "The Changing Models of Inner City Grocery Retailing." July.