

Iowa's Local Food Systems: A Place to Grow

Laura Krouse
Teresa Galluzzo

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The Iowa Policy Project

318 2nd Avenue North • Mount Vernon, Iowa 52314

319-338-0773

www.iowapolicyproject.org

Authors and Acknowledgements

Laura Krouse teaches biology at Cornell College, runs a community supported agriculture farm, is District Commissioner of the Linn Soil and Water Conservation District and serves on the Iowa Valley Resource Conservation & Development Council.

Teresa Galluzzo has been a Research Associate at the Iowa Policy Project since November 2004. Her work focuses on Iowa environmental issues.

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The Iowa Policy Project

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The Iowa Policy Project promotes public policy that fosters economic opportunity while safeguarding the health and well-being of Iowa's people and the environment. By providing a foundation of fact-based, objective research and engaging the public in an informed discussion of policy alternatives, the Iowa Policy Project advances accountable, effective and fair government.

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By Laura Krouse and Teresa Galluzzo

You could easily live your whole life in Iowa without eating an Iowa-grown meal. This may seem surprising because Iowa is a leading agricultural state and in the not-so-distant past most of our food was produced here. Today very few Iowa farmers grow food for consumption in their communities. In fact, it has been estimated only 10 percent of the produce Iowans eat is grown in the state.¹

This report opens with a description of Iowa's existing food system. Then, in contrast to current agricultural practices, it highlights the potential for Iowans to grow and produce a variety of foods for local consumption. The following section reviews the environmental, social, health and economic benefits of local food. The report concludes with recommendations for policies that could increase the local food market.

The State of Iowa Agriculture

A trip to the grocery store reveals that Iowans buy well-traveled food. They purchase apples from New Zealand and Washington, chicken from Georgia and Delaware and salad mix from California and Mexico. It has been estimated the average fresh produce item Iowans purchase traveled nearly 1,500 miles on its trip to the grocery store.² There is no certainty that even a pork chop purchased in Ankeny was produced in Iowa. Depending on market forces, the meat could have come from North Carolina or Brazil, and perhaps passed Iowa pork chops on their way to grocery stores in other parts of the world.

The U.S. Department of Agriculture's (USDA) Economic Research Service (ERS) tracks U.S. imports and exports, allowing us to compare our nation's trade with the rest of the world's. This comparison shows that the pork chop example described above is likely; in 2005 while the U.S. exported \$2.28 billion worth of pork, it also imported \$1.28 billion worth of pork. See Table 1 for examples of trade in other commodities.

Table 1. U.S. Trade by Commodity in 2005
(Values in 1,000 Dollars)

Commodity	Import	Export
Beef & Veal	3,651,172	929,967
Pork	1,280,683	2,284,688
Poultry Meat	137,143	2,616,098
Eggs	21,407	249,910
Fresh Apples	103,732	493,900
Fresh Tomatoes	1,074,836	166,279
Fresh Potatoes	91,256	110,206
Fresh Cauliflower & Broccoli	46,755	178,921
Fresh Carrots	32,349	105,956

Source: USDA, Economic Research Service 2006

Iowans spend about \$8 billion annually on food, our share of \$800 billion spent nationally.³ If it is accurate to extrapolate Iowans' 10 percent Iowa-grown produce consumption to their entire diet, then 90

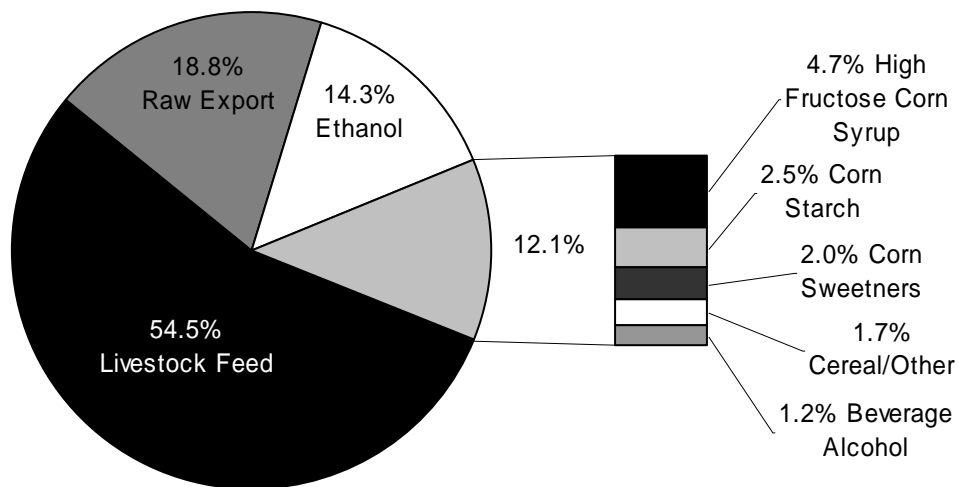
percent of all the food Iowans eat is produced outside the state. This would mean \$7.2 billion is leaving Iowa every year to fill the pockets of farmers, food processors and distributing companies in other states and countries.⁴

Iowans' diets consist of food from around the world because of globalization. In just a few decades, food has gone from being grown and processed in communities to being grown, processed and shipped around the world. Today, multinational food companies respond to market pressures to bring us a wide variety of low-priced, always available, yet relatively uniform food. These food companies have a big and lasting impact, not only on consumers' food choices, but also on Iowa's farmers because of the demand they create for select commodities. A report by the Agriculture of the Middle project states that, "Rapid consolidation, initially in the seed and manufacturing sectors, but now in the huge food retail sector, means that in the near future about six multinational retail firms will determine not only the size of America's farms but the type of management decisions made on those farms."⁵

If the vast majority of food Iowans are eating isn't grown in Iowa and yet 88 percent of the land in the state is used for agriculture, what is grown here? In 2005, Iowa led the nation in the production corn and soybeans. These two crops alone covered nearly two-thirds of the state's land.⁶ Very little of the corn and soybeans are consumed directly as human food.

In 2005-06, almost 55 percent of the corn grown in the United States was used to feed livestock. Further, nearly 19 percent of the national corn crop was exported as a raw commodity and 14 percent was used to produce ethanol for fuel (see Figure 1).⁷

Figure 1. Uses of the 2005-06 United States Corn Crop



Data Source: Iowa Corn Promotion Board 2006

The numbers for soybeans are similar. Overall, 55 percent of the U.S. soybean crop was processed in the U.S. and 45 percent was exported. Most soybeans processed in the U.S. are crushed to produce meal and oil. Eighty-five to 90 percent of soybean meal was used for livestock feed while the other 10-15 percent was used for human food ingredients. Ninety-five percent of the oil was used as ingredients for the human food market and the other 5 percent was used for industrial oils.⁸

ⁱ The Agriculture of the Middle project is a "national initiative [that] seeks to renew what is being called the "agriculture-of-the-middle." This term refers to a disappearing sector of mid-scale farms/ranches and related agrifood enterprises that are unable to successfully market bulk commodities or sell food directly to consumers. Begun as a task force in 2003, the initiative is entering a development phase."

In 2005, Iowa also led the nation in production of pork and eggs, was fifth in oats, seventh in cattle, eighth in hay and ninth in turkeys and lambs.⁹ As with corn and soybeans, most of these products are bound for the global commodity market and not for consumption by Iowans, although more of the livestock produced here may be consumed as meat by Iowans.¹⁰

What do Iowa's farms look like? The Agriculture of the Middle project has described three categories of farms based on the markets for which they produce: small-scale farms selling to direct markets; large, vertically integrated farms producing for the global commodity market, and the farms in the middle.

Small-Scale Direct Market Farms

Small farms are sometimes called "hobby farms" or "farmettes." While these farms can simply provide opportunities for exercise and entertainment for their owners, there is a significant group of people for whom farming a few acres or raising a small number of animals serves as a major source of family income. These farms can be nimble in their business decisions because of their relatively low capital investments. Because of their small size, it is possible to raise labor-intensive crops and livestock such as vegetables, herbs or free-range broilers. Small farm operators often rely on off-farm sources of income and participate less frequently in federal farm programs than do operators of larger farms, sometimes because of choice, but often because they grow non-commodity crops that are not eligible for federal subsidies.

The Ag of the Middle project defines these farms as those that directly market their goods to consumers. Their report notes the number of small farms is growing across the nation. In Iowa from 1987 to 1997, there was an 18 percent increase in sales from farms of 1 to 100 acres in size, as well as an increase in the number of small farm operators and the number of acres in small farms. This growth has continued, and from 1997 to 2002, there was a 39 percent increase in farms with sales of \$2,500 or less.¹¹

The ERS farm categories that best match the description given by the Ag of the Middle project are the small farms whose operators have a primary occupation other than farming and pursue farming on the side as a lifestyle, operators who are retired from another job and those who may report farming as their primary source of income but have sales less than \$100,000. These three types of small farms make up over 60 percent of farms nationwide, but account for only about 10 percent of sales. Farm owners in these categories are most dependent on off-farm sources of income.¹²

Large, Consolidated Farms

Large farms are defined as having gross sales greater than \$500,000 per year. In Iowa, these farms usually have a large number of acres or confined animal feeding operations. They primarily produce corn, soybeans, beef and pork for the global market. Their operators are generally committed to full participation in federal programs, which support the prices of the commodities they produce. Because of the time and capital commitment required to farm this large amount of land, there is usually no additional management capacity or infrastructure to produce crops or livestock for sale to local markets.

The Ag of the Middle project defines large farms as those that sell their commodities to huge, consolidated food and fiber firms. Their report notes the number of large farms is growing across the nation. In Iowa, from 1987 to 1997, there was a 71 percent increase in sales from farms of more than 1,000 acres in size, as well as an increase in the number of large farm operators and the number of acres in large farms. This trend has continued and from 1997 to 2002, there was a 17 percent increase in farms with sales of \$500,000 or more.¹³

The two ERS categories that best match the description of large farms given by the Ag of the Middle project include very large family farms, those with sales of \$500,000 or more, and farms organized as non-family corporations or cooperatives, as well as farms operated by hired managers. These two types of farms make up only 5 percent of the farms in the nation but account for about 45 percent of sales. The majority of these farms owners' incomes comes from on-farm activities.¹⁴

Midsized, Agriculture of the Middle Farms

Middle-sized farms are those with gross sales in between those of the small and large farms. In 2005 the average Iowa farm was 355 acres; the majority of "traditional" Iowa farms fall into this middle group.¹⁵ Almost every family on middle-sized farms relies on either one or both adults working off the farm, which reduces the time available for managing the farm. However, off-farm work provides a steady paycheck and access to health insurance. Almost all middle-sized farms are fully enrolled in federal farm programs. Like the large farms, they are highly capitalized and usually carry debt, including annual production loans to plant crops. Unlike the very large farm operators, these farms are rarely able to take advantage of efficiencies of size to reduce their input and production costs. They often produce only commodity crops like corn and soybeans, but sometimes have livestock in confinement or on pasture, depending on the time they have to care for livestock.

Mid-sized farm operators are generally reluctant to try new enterprises because of the opportunity costs of taking land out of commodity crop production. Any change, besides requiring more time and management, could result in a permanent reduction in the size of their base acres or program payment, which might not be recovered if the new enterprise fails. Because of constraints in time, capital, infrastructure and knowledge, these farmers rarely sell to the local market with the exception of those who directly market meat or who have diversified into annual crops such as pumpkins or sweet corn, or perennials such as grapes. These alternative enterprises tend to require attention at times of the year when the labor needs of the commodity crops are less and often utilize the same farm equipment.

The Ag of the Middle project describes these farms as the "farms [that] operate in the space between the vertically integrated commodity markets and the direct markets. While the bulk of these farms have gross annual sales between \$100,000 and \$250,000... farms of any size may be part of the market that falls between the vertically integrated, commodity markets and the direct markets." The report further states, "Nationally, midsized farms still make up the largest share of 'working farms' – farms where the chief source of income and primary occupation is farming. These farms also constitute the largest use of farm land and currently remain as a critical variable in rural community success." However, the number of midsized farms is declining quickly across the nation and state. In Iowa, from 1987 to 1997, there was a 29 percent decrease in sales from farms with 260 to 500 acres, as well as a decrease in the number of midsize farm operators and the number of acres in midsize farms. This trend has continued; from 1997 to 2002 there was an 18 percent decrease in farms with sales between \$2,500 and \$500,000.¹⁶

The Ag of the Middle project report states these "farms are the most vulnerable in today's polarized markets, since they are too small to compete in the highly consolidated commodity markets and too large and commoditized to sell in the direct markets. ... Ironically it is also the mid-sized farms that have a comparative advantage in producing unique, highly differentiated productions. Their smaller size enables them to remain flexible and innovative enough to respond to highly differentiated markets. ... The commodity markets are ill equipped to produce such unique, highly differentiated products, owing to the uniformity and specialization demanded of commodity markets. And the direct markets are unlikely to produce the quantity of unique products that this emerging market demands."¹⁷

The ERS categories that the Ag of the Middle project report says best fit these farms are lower- and higher-sales farming occupation farms and large family farms with sales between \$250,000 and \$499,999. These types of farms make up about 30 percent of the farms in the nation and account for about 45 percent of sales. Although most mid-sized farm owners report farming as their major occupations, their incomes come from a fairly even combination of on- and off-farm sources.¹⁸

The Role of Federal Payments

In 2005, over 95,000 Iowa farms received \$1.94 billion in subsidies for commodity crops such as corn and soybeans.¹⁹ According to the most recent (2002) United States Department of Agriculture (USDA) Census of Agriculture, 70 percent of Iowa farmers received a subsidy in 2002; however, the most recent data (2005) on total subsidy payments shows these payments were unevenly distributed. For example, the top 1 percent of recipients received 9 percent of the payments, with an average payment of \$188,655. The bottom 80 percent of recipients, however, received only 31 percent of the payments, with an average payment of \$7,969 (see Table 2).²⁰

Table 2. 2005 USDA Farm Subsidy Payments in Iowa

Percent of Recipients	Percent of Payments	Number of Recipients	Average Payment per Recipient
Top 1%	9%	953	\$188,655
Top 2%	16%	1,907	\$159,267
Top 10%	47%	9,535	\$96,130
Top 20%	69%	19,071	\$69,671
Remaining 80%	31%	76,284	\$7,969

Source: Environmental Working Group 2006

It is difficult to overestimate the importance of federal farm programs to the survival of large and mid-sized farms. For example in 2000, Benton County farmers sold \$146 million in farm products. That same year, federal program payments in Benton County were \$35 million. Net farm income for that year was \$15 million.²¹ In other words, net farm income from some of the most productive farmland would have been negative \$20 million without federal payments.

This lack of profits and reliance on subsidy payments has been found year after year in every area studied in Iowa. And, Iowa farmers are not inefficient producers: from 1969 to 1996, Iowa farm productivity nearly doubled, and the costs of production per bushel or per head have continuously decreased.²² Now, as the price of fuel and fertilizer rises and budget constraints and international pressure to reduce federal commodity payments increases, farmers expect profits to be even lower. Without the infusion of money from federal programs, most farmers could not stay in business. With shrinking net income, mid-sized farm operators will be especially hard hit.

Food Processing in Iowa

Iowa's commodity crops and livestock provide a sizable portion of the raw material for the global food system. Food processors turn crops into consumer-ready products, most of which are shipped out of state and often around the world. Many of the crop and livestock processors in Iowa are among the world's largest multinational food corporations, and they control an amazingly large share of the global commodity processing markets. These companies continue to consolidate and grow, so tracking who owns and operates what plants and processes what commodity is difficult, but as of February 2005, the

companies listed in Table 3 controlled much of the processing in their markets. Several companies control large portions of more than one market.²³

Table 3. Concentration of U.S. Agricultural Markets (Feb 2005)

Market	Concentration Ratio	Top Firms
Beef Packers	83.5% (top four firms)	Tyson Foods Cargill Swift & Co. National Beef Packing Co.
Pork Packers	64% (top four firms)	Smithfield Foods Tyson Foods Swift & Co. Hormel Foods
Soybean Crushing	71% (top three firms)	ADM Bunge Cargill
Ethanol Production	41% (top four firms)	ADM Cargill Aventine Renewable Energy Inc VeraSun Energy Corporation

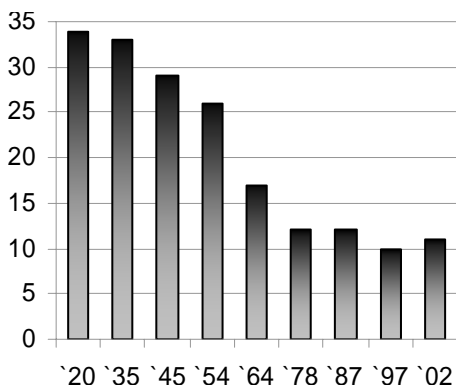
Source: Hendrickson and Heffernan 2005

The Potential and Demand for Local Food in Iowa

Years ago, the state’s slogan was “A Place to Grow,” a phrase emblematic of Iowa’s wealth of natural and human resources. Iowa has abundant resources suitable for food production: rich soil and flat or gently rolling land; plentiful rainfall, sunshine, and a long growing season; and farmers with generations of local knowledge. Many of the foods consumed by Iowans can be produced here, including fresh fruits and vegetables, meat, dairy, eggs, poultry, grains and legumes.

Throughout the state’s history, a wide variety of products have been grown and consumed by Iowans. In 1920, 34 different crops were produced commercially by at least 1 percent of farms in Iowa. By 2002, the number of crops had shrunk to 11 (see Figure 2).²⁴

Figure 2. Number of Crop and Livestock Enterprises Produced for Sale on at Least 1 Percent of Iowa Farms



1920: Horses 95%, Cattle 95%, Chickens 95%, Corn 94%, Hogs 89%, Apples 84%, Hay 82%, Oats 81%, Potatoes 62%, Cherries 57%, Wheat 36%, Plums 29%, Grapes 28%, Ducks 18%, Geese 18%, Strawberries 17%, Pears 17%, Mules 14%, Sheep 14%, Timothy 10%, Peaches 9%, Bees 9%, Barley 9%, Raspberries 7%, Turkeys 7%, Watermelon 6%, Sorghum 6%, Gooseberries 3%, Sweet Corn 2%, Apricots 2%, Tomatoes 2%, Cabbage 1%, Popcorn 1%, Currants 1%

2002: Corn 58%, Soybeans 54%, Hay 36%, Cattle 33%, Horses 13%, Hogs 12%, Oats 8%, Sheep 4%, Chicken 2%, Goats 1%, Ducks & Geese 1%

Source: Leopold Center for Sustainable Agriculture 2002

For example, Iowans historically grew many of the apples they consumed. In 1870, nearly all of the fresh apples eaten by Iowans were grown in the state. In 1909, Iowa was sixth in the nation in apple production. However, in the mid-1920s, Iowa apple production decreased due to increased row crop production and competition from other states. According to a report by Rich Pirog and John Tyndall, “The Iowa apple industry was dealt a devastating blow by a severe freeze on November 11 (Armistice Day) in 1940, which killed or severely injured many of the trees.” In 2004, Iowa ranked 31st out of the 35 states that produce apples commercially, producing 5,300,000 pounds.²⁵

Grapes are another example of a crop that was once grown widely in Iowa. “Iowa was 11th in grape production in the nation in 1899 and sixth in 1919. Iowa shifted its major crop focus to the production of corn and soybeans in 1930 and 1940. By the late 1940s drift of the corn herbicide 2,4-D, caused considerable damage to remaining vineyards and was a key factor in the decline of the grape industry in Iowa.” There is only one remaining grape juice processor in Iowa, Mrs. Clark’s Foods in Ankeny. Many of the grapes processed there come from other states and much of the juice is sold outside the state.²⁶

Iowa was also once home to a large and varied produce processing industry. For example, at one time Iowa was the world’s leading canner of sweet corn. In 1924 there were 58 sweet corn canning factories in 36 Iowa counties.²⁷ The Reinbeck Canning Company, which canned sweet corn and asparagus, may have been the last cannery operating in Iowa when it closed in 1977. We are not aware of any canning or freezing facilities operating in the state today.²⁸

Not all Iowa-grown products are processed by giant multinational corporations today. Meat can easily be transformed by small processors into consumer ready food. A survey done in 2002 for the Leopold Center found that of Iowa’s 280 licensed meat processors all except for the few giant packing plants, are local lockers that process a comparatively small amount of meat for local farmers. Of the 218 locker owners interviewed, 139 work with farmers who direct market their meat to consumers.²⁹

There are also at least four family and two farmer-network owned dairies that sell milk to their local markets. Francis and Susan Thicke operate one of these, Radiance Dairy, near Fairfield.³⁰ The Thickets are maximizing their farm’s productive capacity and report still increasing demand for their products.

There are also a number of small food processors making everything from apricot jam to zucchini pickles. According to the Iowa Department of Inspection and Appeals, in fiscal year 2004 there were 214 food processing facilities (not including poultry, meat or dairy) with annual sales less than \$500,000 (see Table 4). Most of these 214 facilities are not commercial in character, and even some of the 230 facilities that sell more than \$500,001 annually may be family businesses.³¹

Table 4. Number of Food Processing Plants in Iowa by Annual Sales in FY 2004

< \$50,000	\$50,001 - \$250,000	\$250,001 - \$500,000	> \$500,001
137	57	20	230

Source: Iowa Department of Inspection and Appeals 2006

Note: Does not include poultry, meat or dairy

Increasing Demand for Local Food

Most Iowa families buy their food from the grocery store and thus the global food system. But more and more, people are interested in buying food grown closer to home. The definition of “local” can vary –

eggs from the 4-H'er down the road, meat from a farmer in the next county, wine from a winery on the other side of the state, and cheddar cheese from a creamery in southwest Wisconsin – but in each case, there is an effort by the consumer to buy from the closest source.

In a November 2003 consumer study by the Leopold Center and the ISU Business Analysis Lab, 15 percent of the participants “reported that they were willing to pay [an additional] 30 percent or more for local food products that were raised by family farmers in an environmentally friendly manner.”³² Further, according to several recent market studies, up to 25 percent of people make their purchasing decisions based on their social and environmental values.³³

As mentioned above, people meet their local food desires through a variety of sources such as farmers' markets, community supported agriculture (CSA) arrangements, local restaurants, and grocery stores. In 2004, Iowa boasted 180 farmers' markets, more per capita than any other state. This number is more than a 60 percent increase over the previous decade. It is estimated that 1,600 vendors sold food and wares to 135,000 people during the 2004 season. This activity generated more than \$20 million in consumer reported sales and supported 140 full-time employees.³⁴

The Des Moines Farmers' Market is a good example. This colorful market in downtown Des Moines attracts over 300 vendors to on Saturday mornings during the growing season. With a wide variety of products from wine and cheese to barbeque and crepes and every imaginable variety of fresh produce, it is no wonder the average Saturday attendance was 15,000 in 2005.³⁵

There are now at least 38 CSA farms in Iowa, up from the first three that began in 1995. Typical Iowa CSA farms deliver a share of their products weekly to the 10 to 200 families who have paid in advance. These families pay \$250-\$500 per share, and receive a portion of whatever the farm produces – vegetables, fruits, eggs, bread, meat – every week for 20 to 30 weeks.

Iowa restaurants increasingly feature Iowa-grown food, from Lincoln Café in Mt. Vernon to West Bend Café in Armstrong. Chefs prefer local food for its freshness, taste and superior quality. A premier example is Rudy's Tacos in Waterloo, where 60 percent of the food served is purchased locally.³⁶

Additionally, grocery stores such as New Pioneer Coop in Iowa City and Wheatsfield Grocery in Ames are adding more Iowa-grown and Iowa-processed products to their shelves. These stores are responding to their shoppers' demand for food grown closer to home.³⁷

Schools, universities, hospitals, prisons, nursing homes and other institutions are also interested in providing local food. In 2000, the Nevada Community School District started a pilot program for which they hired a broker to purchase local food for the school.³⁸ Luther College in Decorah purchases a portion of its food locally and started a student garden. Allen Memorial Hospital in Waterloo purchases 30 percent of the food it serves locally.³⁹ Bartels Lutheran Retirement Community in Waterloo purchases beef, milk and produce locally, equaling 25 percent of its total food purchases.

In March 2005, The Center for Energy and Environmental Education and the University of Northern Iowa (UNI) Local Food Project studied two institutions and one restaurant that were purchasing whole animals locally. The three participants, Bartels Lutheran Retirement Community in Waverly, UNI Dining Services and Rudy's Tacos in Waterloo, are all located in the northeast portion of the state and purchase whole animals directly from area farmers or from area lockers that buy directly from local farmers. The study analyzed this practice in terms of prices, savings and other factors including choices and flexibility. Overall, the researchers found it was possible for these participants to buy locally raised

and processed meat at prices competitive with conventional sources and that community economic development, food safety and food quality were all positively affected.

Further, the study found institutional/restaurant buyers are interested in knowing the farmers who raise the food and the locker owners who process the meat, supporting local farms and food businesses, and ensuring food safety and accountability for their customers and clients. They found the business relationships that developed with the farmers and/or processors allowed for choice and flexibility. Additionally, participants valued the community connection that developed when they bought locally.⁴⁰

Farmers, too, are interested in the possibilities of local food systems. Most Iowa farmers would like an alternative market that would allow them to continue to farm, not expose them to big financial risk or leave them dependent on federal subsidies, and be good for the environment and their communities.

A Tool for Calculating Iowa's Produce Supply and Demand

A recently developed tool shows how far Iowans' demand for produce outstrips what is grown in the state and thus can be useful to farmers interested in assessing the supply and demand for produce.⁴¹ The Iowa Produce Market Potential Calculator, created by ISU's Center for Transportation Research and Education and the Leopold Center for Sustainable Agriculture, can be used to compare what Iowans eat and what Iowa farmers produce for 37 different fruits and vegetables. The model calculates supply, demand and yield information for each produce item on an individual county or statewide basis.

The calculator thus provides an easy way to estimate the potential for selling fruits and vegetables in Iowa. It also illustrates the surprisingly large volume of business in fruits and vegetables that already occurs. Table 5 shows the surplus or deficit for each of the 37 produce items in Iowa over a year. Sweet corn is the only item where the amount grown actually exceeds the Iowans' demand. For the majority of the other items, Iowans consume far more than what is grown in the state.

Table 5. The Difference between the Amount Grown in State and Iowans' Demand for 37 Produce Items

Produce Item	Surplus/Deficit	Produce Item	Suprlus/Deficit
Sweet Corn	34%	Grapes	-96%
Pumpkins	-15%	Peppers, Bell	-96%
Apples	-50%	Onions	-97%
Beans (Snap)	-70%	Pears	-97%
Cabbage	-75%	Plums	-97%
Watermelon	-77%	Cherries	-98%
Blackberries	-78%	Okra	-98%
Cantaloupe/Muskmelon	-81%	Broccoli	-99%
Potatoes, Fresh	-82%	Cauliflower	-99%
Squash	-88%	Eggplant	-99%
Raspberries	-90%	Greens/Collards	-99%
Tomatoes	-90%	Peaches	-99%
Asparagus	-91%	Potatoes, Sweet	-99%
Strawberries	-91%	Spinach	-99%
Cucumbers	-92%	Garlic	-100%
Apricots	-93%	Lettuce, Head/Semi-Head	-100%
Blueberries	-94%	Lettuce, Leaf/Romaine	-100%
Carrots	-95%	Nectarines	-100%
Radishes	-95%		

Source: Iowa Produce Market Potential Calculator, Center for Transportation Research & Education and The Leopold Center for Sustainable Agriculture

The Benefits of Local Food

Iowans have the potential to grow and process a wide variety of products. They have also proven their desire to eat locally grown food. Iowans support locally grown food for a variety of reasons, including desires to reduce their environmental impact, eat fresh and nutritious food, support their neighbors, increase safety and foster a healthy local economy.

Environmental

Fuel Use and CO₂ Emissions Reduction

Seventeen percent of the U.S.'s energy budget is used for food, including production, processing and distribution.⁴² A large portion of this energy is used to move food products to their final destinations. Transportation relies on burning fossil fuels, which releases gases, including carbon dioxide (CO₂). CO₂ is naturally found in Earth's atmosphere, where it traps some of the Earth's heat and keeps the planet a livable temperature. However, modern human activities are releasing more CO₂ into the atmosphere than ever before.

As CO₂ levels in the atmosphere increase, the potential for global climate change increases. Overwhelming scientific evidence from a variety of disciplines shows the Earth's climate is changing due to human actions.⁴³ One of the most important actions we can take to reduce our impact is to decrease CO₂ emissions.

Calculations from a Leopold Center model show that by purchasing 10 percent of 28 fruits and vegetables from local sources, 5-17 times less CO₂ would be emitted than if they were purchased from the global system. Sourcing just this small portion of produce from regional or local food systems saves 280-436 thousand gallons of fuel and reduces CO₂ emissions by 6.7-7.9 million pounds annually. The authors of the study estimate their model represents less than 1 percent of total Iowa food and beverage consumption and that if a higher percentage of foods and beverages were grown and/or processed in Iowa, greater savings in fuel and reduced CO₂ emissions would be possible.⁴⁴

Decreased Packaging

Another benefit of local food is the decreased need for packaging. When food is delivered fresh, there is less need for the individual packaging required for retail sale and the bulk packaging necessary for long-distance transport. Regional and local producers typically reuse packaging materials such as waxed boxes, or deliver products in bulk containers where they are transferred directly into consumers' shopping baskets.

The use of less packaging could have a significant environmental impact by reducing the number of resources used to create the packaging in the first place and by reducing the amount of waste disposal afterwards. According to the U.S. Food and Drug Administration, 55 percent of all packaging made in the U.S. is for food products.⁴⁵ In 2005, containers and packaging of all types accounted for 31.7 percent of total municipal solid waste by weight.⁴⁶

Increased Diversity in Land Use and Genetics

Natural ecosystems are diverse in species and genetic variation within each species. Agricultural ecosystems are necessarily managed to reduce diversity, often to a single species per field, and often with very little genetic diversity within the species. Monocultures are dominant across Iowa, from 160 acres planted with one corn hybrid to confinements of thousands of pigs of the same genetic background. While this lack of diversity results in high production, constant inputs of technologies such

as tillage, antibiotics, herbicides and insecticides are needed to maintain agricultural species. Without inputs, these agricultural ecosystems quickly become non-productive.

One environmental cost of this lack of diversity is increased soil erosion. Average soil loss in Iowa is seven tons per acre per year, about 40 percent above what is believed to be replaceable.⁴⁷ Soil erosion leads to poor water quality. Sediment is the primary pollutant of Iowa's waters, which are among the most polluted in the nation.

Another cost is the loss of genetic diversity. As the seed and livestock industries become consolidated, a few highly productive improved varieties become profitable, and interest lessens in older varieties of plant and animal species. A study by the Rural Advancement Foundation International looked at 75 vegetables and found that 97 percent of the varieties of these vegetables available in 1903 – and their unique genes – are now extinct.⁴⁸ According to the Food and Agriculture Organization, 30 percent of domestic animal breeds are endangered.⁴⁹ There are further ramifications of this reduction. For example, “90 percent of all commercially produced turkeys in the world come from three breeding flocks. Such genetic uniformity, initiated to obtain a standardized product, results in birds with such compromised immune systems that their health cannot be maintained without the excessive use of antibiotics.”⁵⁰

Production of food for local and regional consumption could reduce soil erosion and the loss of genetic diversity. Rotations would change and diversify as more types of crops are grown, thus reducing soil erosion. Varieties of crops and livestock valued for taste, nutritional value, pest resistance and suitability for local conditions would be produced rather than those designed to have a long shelf life or uniform appearance.

Health

The nutritional quality of many foods, especially fresh fruits and vegetables, is variable. Soil quality, plant variety, post-harvest handling and length of time in storage all affect nutrient content. Local fruits and vegetables usually reach consumers more quickly and more often at the peak of freshness. So it is likely that locally produced fruits and vegetables often have higher nutritional value.

One thing certain about locally produced foods is that the farmer or processor can be identified more easily than can the producers of food for the global market. The much shorter distance between consumers and producers of local food allows consumers to find out about their food and helps farmers learn their consumers' needs and concerns.

Social

Farmers' markets and CSAs create new spaces within communities for people to socialize. In fact, sociologists estimate people have 10 times more conversations at farmers' markets than supermarkets.⁵¹ Further, because these gatherings are about food and the local environment, people may become more interested in the well being of their community and environment. Direct marketing by farmers to consumers builds relationships, creating customers who care deeply about “their” farmers and farmers who work hard to provide the very best food for “their” customers.

As local food markets grow, farmer networks will likely form to increase supply by grouping their products together. As experienced by Practical Farmers of Iowa and other sustainable agriculture groups, farmer-to-farmer communication is a highly efficient way to share production and marketing practices and has led sharing of equipment, labor and knowledge, and mentoring of beginning farmers.

Security

The vast majority of the food Iowans eat comes from someplace else, frequently another country. In fact, 39 percent of fruits, 12 percent of vegetables, 40 percent of lamb and 70 percent of fish and shellfish consumed in the U.S. are imported. On average the typical American meal contains ingredients from at least five other countries.⁵²

While importing food from the international market provides a wide selection of cheap food, international dependency can mean vulnerability. Shortages in food because of wars, fuel availability, human and livestock pandemic illness, natural disasters and terrorist attacks become more likely when food is produced in far off places and travels long distances. As ecologist David Orr states, “A society fed by a few mega farms is far more vulnerable to many kinds of disruption than one with many smaller and dispersed farms. . . . No society that relies on distant sources of food, energy, and material or heroic feats of technology can be secured indefinitely.”⁵³

Local production of food increases “homeland security” simply because food produced in many local communities makes it less vulnerable to attack. We currently rely on long-distance transportation to receive food. “One estimate suggests that most major cities in the eastern U.S. have less than a two days’ supply of food on hand and thus are vulnerable to sudden transportation restrictions.”⁵⁴

Further, livestock and crops with similar genetic backgrounds can be easy targets for highly virulent disease-causing agents. While some believe livestock, in particular, can be kept more secure in closely confined facilities, others believe the opposite. These people argue when livestock are housed in very large confinements, when huge expanses are covered with only one or two crops, and when food from only one or two processing plants is distributed to most of the country, the opportunity for toxic agents to enter the system and spread quickly is greatly increased.

Economic

The commodities produced by Iowa’s farmers provide income to farm families and rural communities, but the most significant economic returns – an estimated 81 percent of consumer dollars spent on food – go to processing, packaging, transporting and marketing firms. This leaves only a small share of the value for farmers, or about 19 cents of every dollar spent on the food they grow.⁵⁵

Local food systems involve farmers, input providers, processors, distributors, retailers, consumers and food preparers in keeping our food dollars closer to home. A thriving local food system can support farmers who practice environmentally beneficial agriculture, local feedmills, hatcheries, and seed houses, local processors, distributors, retailers and restaurateurs. It can create jobs and circulate money within communities, improve food programs at institutions like schools and hospitals, and improve access to nutritious food.

Perhaps no benefit of local food is more important than its potential economic impact on farms and rural areas. Several recent studies have attempted to quantify the economic impact of local food in Iowa.

“The Economic Impacts of Increased Fruit and Vegetable Production in Iowa”

A 2005 study by Dave Swenson for ISU’s Regional Food Systems Working Group and the Leopold Center used a model to estimate the value that would accrue to Iowa if production of 37 fruits and vegetables that can be grown in Iowa was increased to satisfy 25 percent of Iowan’s current demand for these products. The model assumed the produce would be marketed by Iowa farmers directly to Iowa consumers. It took into consideration the loss of jobs, sales income and farm program payments

resulting from taking about 15,000 acres out of corn and soybean production and converting it to fruit and vegetable production. Swenson also considered the loss of grocery store sales, the added value of the dollars remaining in the state, and the effect of these dollars as they were spent repeatedly within the community.

Because most of the fruits and vegetables consumed in Iowa come from outside the state, growing one-quarter of the produce Iowans consume would have a large impact on the economy. In the final analysis, Swenson found the net added value to the Iowa economy attributable to the scenario would be almost \$140 million in sales, \$54 million in labor incomes and 2,031 jobs.

To accomplish this goal, Iowa would need more warehousing, cold-storage and transportation systems and additional infrastructure, all of which would create jobs. The model estimates about \$4 million in farm program payments would be forfeited, but farmer income from their direct market sales would be over \$99 million.⁵⁶

37 produce types included:

Apples, Apricots, Asparagus, Snap Beans, Blackberries, Blueberries, Broccoli, Cabbage, Cantaloupes, Carrots, Cauliflower, Cherries, Cucumbers, Eggplant, Garlic, Grapes, Greens/Collards, Head Lettuce, Leaf Lettuce, Nectarines, Okra, Onions, Peaches, Pears, Bell Peppers, Plums, Fresh Potatoes, Sweet Potatoes, Pumpkins, Radishes, Raspberries, Spinach, Squash, Strawberries, Sweet Corn, Tomatoes, and Watermelons

“The Economic Impacts of Increased Fruit and Vegetable Production and Consumption in Iowa: Phase II”

A follow-up study by Swenson analyzed the potential net economic impacts that could accrue to the state under various scenarios. This study still supposed 25 percent of the 37 primary fruits and vegetables consumed annually by Iowans would be grown by Iowa producers, but rather than being fully marketed by farmers to consumers, half would be sold to wholesale distributors to distribute through grocery stores. When all the changes in marketing were considered, the researchers found the net value added to the Iowa economy would be \$92 million in sales, \$33.5 million in labor incomes and 1,183 jobs. While this scenario doesn't yield as much economic benefit as the scenario described in the first study, it is perhaps a more accurate description of the capacity of Iowa farmers to market their produce directly.

Two other scenarios were investigated in this analysis; both included a consumption goal in addition to the 25 percent production goal. In one, all Iowans would follow a diet including five servings of fresh fruits and vegetables a day, and for three months of the year, 100 percent of those servings of fruits and vegetables would be grown by Iowa farmers. Since fewer than 20 percent of Iowans now consume this many serving of fruits and vegetables each day, this diet would create a significantly larger demand for produce among Iowa food retailers and direct marketers. Apples, carrots, spinach, squash and tomatoes were selected for this scenario because they can easily be grown across Iowa, they can be available for three months each year with minimal investment in infrastructure and they are highly nutritious. The amount of production associated with this scenario is much greater than in the previous two scenarios, even though the number of fruits and vegetables studied is much smaller. This scenario would require production of 382 million pounds of produce and would require nearly 31,800 acres of crop land. Gross receipts to farmers would be over \$100 million and gross retail receipts would be almost \$430 million. In the final analysis, this change in both consumption and production of fruits and vegetables would add \$302 million in total sales, over \$112 million in labor income and 4,094 new jobs.

The final scenario is nearly the same, except that the consumption goal increased to seven daily servings of fruits and vegetables. For this scenario, potatoes and broccoli were added to the target vegetable list. Seven servings per day were selected because this more closely reflects the nutritional recommendations

of the USDA for Iowa's population. Under this scenario, Iowans would generate a net increase in economic activity of \$429 million in sales, almost \$160 million in labor income and 5,616 new jobs.

This paper reinforces the earlier model that showed Iowa farmers could create significant positive economic impact if they could produce 25 percent of our average annual consumption of the 37 fruits and vegetables, and the impact would be greatest if the produce was directly marketed by the farmers. However, the more realistic expectation that a large share of the production would be marketed through traditional grocery store channels still shows large benefits to the state's economy. If the consumption of fresh fruits and vegetables increased significantly, and if Iowa farmers could provide 100 percent of Iowans demand for three months of the year for five to seven products, the economic benefit would be the greatest. While this level of consumption is unlikely without a great deal of nutritional education, it does demonstrate the potential.⁵⁷

“Consumers, Vendors, and the Economic Importance of Iowa Farmers’ Markets: An Economic Impact Survey Analysis”

This study by Daniel Otto and Theresa Varner looked at the economic impacts of Iowa's farmers markets. The survey was carried out during the 2004 market season when an estimated 135,000 consumers and 1,600 vendors gathered for at least one of the over 180 markets in Iowa. The large survey asked consumers and vendors demographic and market participation questions.

From this data the researchers estimated there was \$20 million in sales during the season. This amount was used to estimate the total economic impact. The model demonstrated the 2004 Iowa farmers' market season resulted in \$31.5 million of gross sales and \$12.2 million of personal income directly or indirectly related to farmers' market activity and over 140 full employment positions indirectly attributed to farmers' market activity. The survey also revealed that most (72 percent) of the total sales were generated by five urban markets, the average consumer visited the market approximately 13 times during the season and several other demographic trends.⁵⁸

“Eating and Buying Wright in North Central Iowa: The Untold Growing Story of Local Food in Wright County”

Interest in local food is increasing across Iowa in both rural and urban counties. Data gathered from food producers and buyers in Wright County in 2004 and 2005 documented the economic benefit of local food in the relatively rural county. Wright County has a population less than 14,000 and an annual household income of about \$36,000, a little less than the statewide median of \$39,500.⁵⁹ A 2004 economic analysis showed Wright County's 717 farms annually receive about \$26 million in federal farm subsidies. These subsidies cover the losses farmers have from market prices that do not cover production expenses. The analysis found production losses for Wright County in 2001 were \$20 million, leaving a net farm income of only about \$6 million, or about \$8,300 per farm.

Wright County residents spend about \$30 million on food annually. This survey showed Wright County producers sold nearly \$250,000 worth of locally grown products to local buyers in 2004, including over two dozen foods such as beef, pork, poultry, honey, strawberries, sweet corn, baked goods and eggs. They found the county's two largest farmers' markets generated over \$17,000 in economic activity in the form of gross sales, input purchases, and payroll, and that five North-central Iowa markets, most of which are attended by Wright County producers, reported more than \$100,000 in gross sales in 2005. This surprisingly large volume of business represents a large amount of activity for a small county.⁶⁰

Policy Recommendations

The ideas in this section are based on the authors' ideas, experiences and interviews with local food leaders. We would like to thank the following people for answering questions: Joe Bolkcom, State Senator; Linda Brown, Director of Marshalltown Community College's Entrepreneurial and Diversified Agriculture Program; Joe Coletti, Senior Associate Dean at Iowa State University College of Agriculture; Jerry Dewitt, Interim Director of the Leopold Center; Neil Hamilton, Director of Agriculture Law Center at Drake University Law School; Susan Jutz, Solon farmer and President of Practical Farmers of Iowa; Fred Kirschenmann, Distinguished Fellow at the Leopold Center; Jeff Klinge and Deb Tidwell, Farmersburg farmers; Matt Liebman, Chair of ISU's Graduate Program in Sustainable Agriculture; Members of Practical Farmers of Iowa; Doug O'Brien, Senior Staff Attorney at Drake University; Rich Pirog, Marketing and Food Systems Research Program Leader at the Leopold Center; Ron Rosmann, Harlan farmer; Matt Russell, Iowa Food Products Coordinator; Francis Thicke, Fairfield dairy farmer; and Stephanie Weisenbach, Mechanicsville farmer.

Local food policy is made, or not made, at all levels of state and local government. Following are suggestions for how policy makers, government officials, and organizations can promote the production and consumption of local food in Iowa.

Increase Financing for Local Producers

Create Beginning Farmer Loans

Nearly everyone interviewed noted the need for increased financing. In particular, most people were concerned about the decreasing proportion of young farmers due to their inability to access the massive financing necessary to enter into conventional agriculture. Producing food for local markets allows young farmers to have lower up-front costs for land and equipment and a greater opportunity to capture profits from their products.

Although producing local food requires less capital, access to state-backed loans that target beginning farmers who have little equity but good management skills could help increase the number of young farmers in the state. Relatively small loans, perhaps only \$5,000 to \$30,000, with low interest rates made by local banks and supported with solid business plans and financial oversight by mentors would give young Iowans the resources they need to produce enough food to affect their local market and make a living.

Target Iowa Department of Economic Development's Funds to Local Food Producers

The Value Added Agricultural Products and Processes Financial Assistance Program (VAAPFAP), managed by the Iowa Department of Economic Development (IDED), provides financial resources through business development programs. The Legislature created this program in 1994 to provide support and business incentives to Iowa farmers and agribusiness entrepreneurs.

In the recent past, very little VAAPFAP money has been awarded in either the "Innovative Agricultural Products and Processes" or the "Organic Processing and Emerging Markets" categories — the two categories that could fund local food projects. This is partly because there have been few applications in these categories. But also because projects approved by the Values Fund (of which VAAPFAP is part) must meet conditions for the quality and number of jobs developed, and local food organization and marketing projects don't often meet these conditions.⁶¹

For the state to demonstrate a commitment to local food, the Legislature should require some portion of its economic development money be targeted to small-scale food entrepreneurs, including farmers, local input providers, processors, brokers and warehousing operations. If even as little as 5 percent of the \$20 million budgeted for the Values Fund were directed to small scale food entrepreneurs many projects – including the local income and jobs they would generate – could get a start.

Establish State Cost Share and Loans

Establishing a cost share program would also help farmers transition to local food production. Just as the Iowa Financial Incentive Program provides cost share for soil conservation and water quality work to landowners on behalf of public good, cost share for the development of local food capacity could go to private individuals or groups to be invested in the infrastructure needed to add value and improve access to local food for all Iowans. Examples of infrastructure projects that might never succeed without a financial boost include: greenhouses for off-season or bedding plant production; planting and harvesting equipment for a producer group; flash freezing capacity for a regional processor; a climate-controlled warehouse for a resource conservation and development (RC&D) project; an on-farm, producer-network owned poultry slaughtering facility; a cheese making plant for specialty cheeses; or a licensed community kitchen for processing locally grown and produced fruit pies or salad mixes.

Similar to the Iowa Water Quality Loan Fund, financing could also be provided through low interest loans to cover costs for projects where it would take some time for costs to be recovered. Eligible projects might include loans for purchasing a refrigerated truck for a regional vegetable broker or financing for installing an irrigation system for a young farmer with a rapidly growing market.

Exempt Transitioning Organic/Local Production Acres from Property Tax

Two counties in Iowa, Woodbury and Cherokee, are the first and only in the nation to offer property tax relief to farmers who convert to organic farming. Woodbury County, which approved the policy in June 2005, offers a tax rebate of \$20 per acre, up to 500 acres, to landowners who transition and certify organic within three years.⁶² Cherokee County approved its policy in September 2006 and will provide up to 100 percent property tax relief for five years to farmers who transition and certify organic.⁶³

These policies are too new to judge their results, but officials in both counties hope the incentive will encourage agricultural diversity, spur economic development and encourage young people to become farmers. A statewide bill to exempt organic farmland from property taxes, Senate File 2181, was introduced to the Legislature in 2006. Many local food advocates believe some incentive for acres dedicated to organic and/or local food production would be a good way to increase participation by mid-size producers and would be especially helpful for beginning farmers, as well as serve as an effective investment in long-term economic development and rural revitalization.

Support State Local Food Programs

Increase Funding to the Organic and Local Food Programs of IDALS

According to the Organic Trade Association, in spite of their higher price, organic foods are the fastest growing sector of national food sales; they rose between 17 and 21 percent every year from 1997 to 2003.⁶⁴ Several Iowa farmers have converted at least some corn, soybean or small grain acres to organic production to capture the price bonuses. Many more farmers are interested in organic production but need information or loans to get them through the transition. Since these farmers are willing to assume the risks associated with a new enterprise, they also may be interested in growing for local markets if assistance is available.

One way to help these farmers with the transition to organic and local production is to strengthen the Agricultural Diversification and Market Development Bureau, which is the home of the Organic Certification Program of Iowa Department of Agriculture and Land Stewardship (IDALS). The program needs a larger staff and budget so it can provide technical resources to farmers on organic production practices, provide financial assistance to ease the transition period and provide assistance with marketing and market development.

Support the Leopold Center for Sustainable Agriculture and Create a Local Food Initiative

In 1987 the Legislature established the Leopold Center for Sustainable Agriculture to conduct research on the negative impacts of agricultural practices, develop alternative practices and inform the public of their findings. The Leopold Center has three research initiatives: marketing and food systems, ecology, and policy. Funding to support the Leopold Center, which comes from fees on nitrogen fertilizer and pesticides and a state appropriation, is subject to annual legislative approval. One important way to support local food in Iowa would be for the Legislature to continue or increase its support of the Leopold Center.

Additionally, a bill introduced in 2006, Senate File 90, proposed establishing a new initiative for the Leopold Center, a "local food distribution program and fund to promote the sale of food grown or produced in Iowa." Projects within this program could assist in marketing and purchasing local foods, promote local food system networks, facilitate cooperation between producers, marketers and processors of local foods, assist with food safety compliance, and provide education regarding Iowa foods. The Legislature should provide new funding for the Leopold Center to undertake this initiative.

Make the Iowa Food Policy Council Permanent

The purpose of the Iowa Food Policy Council, created in 2000, is to provide a comprehensive examination of Iowa's food system and to make policy recommendations for improvement. The Council could, and should, be the primary spokespeople for local food policy.

One way to assure its leadership is to make the Council a permanent program within state government; it currently relies on being continued by executive order. A bill introduced in 2006, Senate File 2332, would have done this and would authorize the Council to advise state government on baseline local production and consumption, policy barriers to engagement in the local food market, innovative local food work being done around the state, and strategies to improve the participation of state government and consumers in the development of local food infrastructure and markets.

Increase Processing Capacity

Many local food advocates believe farmer access to mid-sized, regional processing facilities is critical for local food systems grow. Facilities are needed for processing fruits and vegetables into frozen and preserved food. Four or five moderately sized processing and freezing facilities, located in the four quadrants and center of the state, would begin to address this lack of infrastructure. Further, minimal processing of fruits and vegetables, such as washing, peeling and cutting, is a requirement of most institutional buyers. Yet, the state lacks such facilities. Conveniently located facilities allowing multiple farmers to meet the minimal processing needs of their buyers would help alleviate this problem.

Local or regional infrastructure is also needed to process livestock for local or identity-preserved markets. One processing plant that can handle at least a semi-load of hogs or cattle at least twice a week is needed. There is growing interest in mobile meat processing facilities. The demand for "farm grown chickens" is significant, and more poultry would certainly be produced by Iowa's small and mid-size

farmers for local consumption if processing capacity could be increased. Also no capacity to process identity-preserved milk in the state exists except for six farmer-owned facilities.⁶⁵

Policy to improve processing and distribution capacity should be designed to get produce and meat plants constructed and operating quickly. The facilities could be owned and operated by either farmer networks or private businesses. The development of such increased capacity will require strong leadership, clear vision, and state financing in the form of low interest loans or grants.

Increase Market Access

Train Market Network Coordinators

Having sufficient supply to meet the needs of large-volume buyers and having products ready for market at the correct time is a challenge for a single producer. Producer marketing networks more efficiently allow groups of farmers to work together to meet market demand. Organizing marketing networks includes developing central locations for group activities such as packing, washing and slaughtering; keeping track of each farmer's production; communicating with distributors and buyers, matching orders to farmer supply; and coordinating delivery of products and billing. These are time-consuming and demanding responsibilities and few individuals have the skills to do each one well, while managing production of their own crops and livestock.

The use of producer marketing networks is not new in Iowa; all major commodities are sold into the global market by producer groups and cooperatives. Producer groups for selling in the local food market are not so common, however, and state policies to help form producer marketing networks were suggested by almost everyone interviewed. Funding could be used to hire an employee to assist individual networks in organizing groups of farmers and facilitating the formation of goals and plans. Examples of farmer networks that market local food already exist — the Johnson County Local Food Alliance, GROWN locally, and Coulee Region Organic Produce Pool — and their successes and failures provide useful lessons.

Foster Links between Local Producers and Area Distributors

There are many food brokers and distributors working in Iowa, serving institutions such as hospitals, school districts, corporate campuses and restaurants, and retailers such as convenience and grocery stores. Most distributors buy food in large quantities from the global market, warehouse it in Iowa, perhaps repackage it, and then distribute it. Because of the ease by which distributors and brokers can buy food from the global market, there is little opportunity for small and mid-size Iowa farmers or farmer networks to easily access distributors.

This doesn't mean there is no opportunity, or that opportunities can't be created. For example, Loffredo Fresh Produce, a large produce distributor based in Des Moines, sources only Iowa grown sweet corn, soft and hard squash, and pumpkins while they are in season.⁶⁶ Sysco, the world's largest food service distributor, has begun working with farmer networks in Minnesota, Alabama and New Mexico. In New Mexico, Sysco is purchasing a variety of fruits, vegetables and meats directly from farms and delivering to food service business in the region. Fresh produce accounts for about \$67 million in sales for Sysco in New Mexico, and the company expects local farmers to supply 20-30 percent of that market within a few years.⁶⁷ It seems reasonable to believe a similar situation could develop in Iowa, but this would require considerable leadership by farm groups, policy makers and market network coordinators to develop the consistent quality and quantity of product that will be needed by a large distributor such as Sysco.

In order to increase farmer access to regional distributors a staff person at IDALS, IDED, the Food Policy Council or the Leopold Center could facilitate the supply chain. Farmers, processors and distributors who have worked together in the past and farmers and processors who already have the capacity should be among those initially encouraged to work together. As the momentum for Iowa food grows, the facilitator should guide other farmers, processors and distributors into the supply chain, acting as a matching service for all interested parties until some critical mass of sales occurs and the supply chain could function independently.

Increase the State's Commitment to Local Food

Encourage Private Companies to Develop a Local Food Preference

Private companies can develop an institutional ethic ensuring local food is considered or given preference. For example, Grinnell College has developed a Local Food Policy Statement that states locally grown food is fresher, healthier and more flavorful, and that the college's purchases will support local business and farmers, thus reducing transportation costs, environmental impacts and the use of preservatives. The college "will make reasonable efforts to identify and make purchases of affordably priced local food products that reflect [its] commitment to environmental responsibility."⁶⁸ The state should encourage other private companies to purchase local food. It could do this by giving preference for state incentives or recognition to companies with such a commitment.

Encourage State Employees CSA Membership

In early 2006, Physicians Plus Insurance Corporation of Madison, Wisconsin, began its "Eat Healthy Rebate." This program encourages its 95,000 members to eat more nutritious and locally grown food by subsidizing their membership in Madison-area CSAs.⁶⁹ The program was a huge success in 2006; over 900 rebates were issued, over half of them to new CSA members.⁷⁰ The insurance company calls it a "win-win for families, for local farmers, and for a healthier community."⁷¹ Similarly, Iowa could subsidize state employees' memberships in CSAs, thereby encouraging healthier habits for its employees and a stronger state economy.

Encourage State Institutions to Purchase Local Food

One way to strengthen local food markets in Iowa is to encourage state institutions including prisons, hospitals, schools and universities to buy locally grown food when cost competitive. Iowa's publicly funded institutions, which purchase more than \$30 million in food annually, would create a big demand and provide a testing ground to identify barriers in local food systems.⁷²

Another way to increase state local food purchasing is to require it. However, problems may arise such as conflicts with existing laws and the passage of similar preference laws in other states, putting Iowa food companies at a competitive disadvantage. Also, purchasing preferences are resented by other states' procurement professionals, more reporting would be required by state agencies and defining "local" could be complicated.⁷³

In other cases, mandates may work well. Woodbury County supervisors were the first county in the nation to pass a resolution in early 2006 mandating that county departments purchase locally grown, organic food. The mandate has the potential to shift about \$280,000 annually to farmers within 100 miles of Sioux City. This amount of money is thought to be enough to increase local demand and eventually local production. Woodbury County's policy supports their earlier resolution for tax relief for organic production and is designed to generate more economic activity for area farmers, processors and distributors. The county plans to pay nearly the same price for local food that it now pays for food from the global market, with the money saved on transportation and packaging staying in the county.

Ultimately, the economic development office hopes to develop a quality local food brand specific to their corner of Iowa.⁷⁴ Other county and city supervisors or RC&D directors could follow Woodbury's lead.

Create an Iowa Grown Label

The Iowa Department of Economic Development initiated "A Taste of Iowa" in 2001. This label was applied to products that had over half their value added in Iowa. While ingredients for the products did not have to be grown in Iowa, so the label couldn't be used to identify the source of food, the program was helpful for consumers and institutional buyers looking for an easy way to identify and support Iowa processors. The program no longer exists, but a similar program could be initiated that would identify Iowa-grown and Iowa-processed foods.⁷⁵ Many states have campaigns to promote locally grown food, and with thoughtful planning, a program specific to Iowa-grown food could also succeed. This program would be most helpful to policymakers if its impact was carefully monitored and most helpful to consumers if the definition of "Iowa grown" was easy to understand.

Increase Commitment to Sustainable Agriculture Education

Three Iowa community colleges offer programs in sustainable/alternative agriculture. Marshalltown Community College (MCC) offers a very progressive program in sustainable agriculture – the first in the nation at this level – that focuses on training young farmers to take advantage of emerging markets for local and specialty agricultural products. MCC will certify 146 acres organic in the summer of 2007 and has committed to renting the land to beginning framers with 3-year leases. Western Iowa Technical Community College in Sioux City offers a program in organic agriculture which covers transitioning to organic farming, certification, managing organic crops, organic animal husbandry and product marketing. Indian Hills Community College offers a Sustainable Agriculture/Entrepreneurship program to provide students with the necessary skills for starting or expanding a land-based business.

The state could assist such community college programs by providing more support for experienced faculty and additional support for recruiting students. Because farming for local markets and sustainable techniques are not commonly practiced, more effort is necessary to explain the opportunities these programs offer potential students.⁷⁶

Iowa State University was the first land-grant school in the nation to offer graduate degrees in sustainable agriculture. The program involves more than 70 faculty members from 17 different departments and offers nearly 40 students numerous opportunities to learn the technical skills necessary to produce for the local market or to teach others to do so.

Iowa State's program needs support to offer more assistantships for graduate students and employ additional faculty. In the past several years, the program has lost at least five key faculty members who have not been replaced.⁷⁷ Additionally, the state could help by supporting programs at all schools that facilitate internships on farms producing for the local market and by organizing a regional or statewide beginning/retiring farmer mentorship program.

Conclusion

Iowans can easily buy Chilean cucumbers, organic ice cream from New York flavored with Chinese strawberries, and chicken from Delaware raised on Iowa soybeans. Iowans can also get *E. coli* from California spinach and residues of U.S. banned pesticides from Latin American cantaloupe. Because of this global food system, Iowa farmers compete with farmers around the world to produce at the lowest cost and thus receive low prices.

Iowa farmers are often advised to be “progressive” and embrace the changes brought by globalization. However, some of these changes bring worse conditions such as failing rural communities and barriers for beginning farmers. Perhaps a way to embrace globalization is to take advantage of its weaknesses and feed Iowans with home-grown, home-processed foods.

Iowans are already doing this. Across the state, farmers, processors, distributors and consumers are finding innovative ways to produce and use Iowa food. From Farmersburg to Atlantic to Sioux City, people are eating better with local food and building their communities' economies.

To continue developing local food systems, Iowa's leaders need to be progressive in implementing policy that encourages profitable local food systems. To get started, lawmakers could recall and honor the previous state slogan, “A Place to Grow,” and make it apply to the food Iowans eat. Then it will require a long-term commitment, creativity, foresight and risk-taking, but as local food systems grow, Iowans will reap the rewards.

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