

Creating a Bright Future for Livestock Farmers in Minnesota



A Report by the Citizen Task Force on Livestock Farmers & Rural Communities

Land Stewardship Project

Minnesota Farmers Union

*Minnesota National
Farmers
Organization*

*Sustainable Farming
Association of
Minnesota*

September 28, 2004

Citizen Task Force on Livestock Farmers & Rural Communities

In January 2004, four Minnesota farm groups—the Minnesota Farmers Union, National Farmers Organization of Minnesota, the Land Stewardship Project and the Sustainable Farming Association of Minnesota—came together to create the Citizen Task Force on Livestock Farmers and Rural Communities. Since then, the Citizen Task Force has taken input from, among others, the Minnesota Catholic Conference, Minnesota COACT (Citizens Organized Acting Together), Minnesota Dairy Producers Board, the Izaak Walton League and the League of Women Voters of Minnesota.

In developing this report, the Citizen Task Force used the following guiding principles to create its recommendations:

- ◆ **Economic models that are sustainable and benefit rural Main Streets.** Many economic models take into account only profit for investors and not the negative impacts on the local community and environment. Economic models should take into account such factors as benefits or harm to schools, Main Street businesses and the environment.
- ◆ **Private enterprise as opposed to corporate investment.** When capital and ownership come from private, local sources, control and profit stay local. When capital and ownership are from distant corporate sources, control and profit leave the community.
- ◆ **Benefiting existing livestock farmers and encouraging beginning farmers.** Too often existing livestock farmers are not considered in the rush to attract corporate investment into Minnesota's livestock sector. The truth is Minnesota's existing livestock producers are the starting point for solutions and should be the first considered.
- ◆ **A commitment to promoting a family farm-based system of agriculture.** The family farm based-system of agriculture has made this nation strong and is the most efficient means of production.
- ◆ **A commitment to stewardship of the land.** Livestock agriculture in Minnesota can be practiced in a way that protects and even enhances our state's natural resources for the long term, especially by protecting water and air quality, reducing erosion and building soil quality.
- ◆ **Increasing farmers' access to capital.** Access to local capital at reasonable terms is critical to existing and beginning farmers.
- ◆ **Consumer demand for high quality and safe food.** Consumers have made it clear that they want high quality, safe food. Opportunities exist for farmers to achieve a better price by meeting these needs.
- ◆ **Promoting competition and fair markets.** Markets for livestock have become so concentrated that price manipulation is possible. This is bad for consumers and producers, as packers are able to pay independent producers low prices and overcharge consumers.
- ◆ **Increasing profit to producers.** Policies that increase economic activity without increasing profit to producers are ultimately harmful by increasing concentration in our food industry.
- ◆ **Respecting local forms of government to make decisions about development.** Townships and counties are best suited to react to the needs of local residents. A strong livestock industry need not come at the expense of democracy. Local forms of government should maintain the right to create standards that are higher than the state's standards.

Creating a Bright Future for Livestock Farmers in Minnesota

TABLE of CONTENTS

Executive Summary.....	3
Introduction.....	5
Ensuring Fair Prices & Open Markets.....	7
Creating the Next Generation of Livestock Farmers.....	11
Promoting Livestock Farming that Benefits the Environment....	14
Creating Local Food Systems that Benefit Farmers, Consumers & Rural Communities.....	17
Protecting Rural Democracy.....	21
Sources Cited.....	24

Executive Summary

The Citizen Task Force on Livestock Farmers and Rural Communities has studied the challenges and opportunities facing livestock farmers and rural communities, and has assembled a list of priority recommendations to policy makers and community leaders on ways to increase the number and profitability of Minnesota livestock farmers in ways that benefit rural communities, recognizing that livestock farmers and vibrant rural communities are interrelated.

I. Ensuring Fair Prices & Open Markets

Policies must be enacted that allow farmers to receive a fair price through open markets. Competition must be restored to the marketplace by limiting corporate concentration and encouraging farmers to use collective bargaining strategies.

The Citizen Task Force Recommends:

1) Minnesota's corporate farm law be strengthened. The law places limitations on corporate ownership of farms in order to protect and promote a family farm based system of agriculture. The legislature can maintain and improve the effectiveness of the law by:

- A) Creating an effective fine for violating the law. *Currently there is no significant penalty for violating the corporate farm law.*
- B) Requiring that compliance with the law be demonstrated before the state grants articles of incorporation to a farm. The state must verify compliance annually.
- C) Retaining language in the law that prohibits dairy from being included in the definition of an "Authorized Livestock Farm Corporation."

2) The Minnesota Agricultural Bargaining Act be aggressively implemented by the Minnesota Department of Agriculture (MDA). The MDA must use the law to create a comprehensive program to assist interested farmers in using collective bargaining to ensure a better price for their products.

3) The Minnesota Legislature enhance competition for Minnesota livestock farmers by encouraging the development of producer-owned cooperative processing facilities or independent processing facilities that purchase livestock from independent farmers. This could be done by providing financial incentives similar to what ethanol receives.

4) The Legislature pass a resolution urging the Minnesota Congressional delegation to support Country of Origin Labeling (COOL) and a ban on packer ownership of livestock.

5) The legislature pass and the state aggressively enforce legislation prohibiting Milk Protein Concentrate (MPC) in food sold in Minnesota. MPC is being imported to the United States and used illegally in food products to displace domestically produced milk. In addition, the legislature should pass a resolution urging our federal delegation to demand the federal government begin enforcing the regulations that prohibit MPC in dairy products.

II. Creating the Next Generation of Livestock Farmers

Creating incentives and programs that encourage young people to become livestock farmers is critical to maintaining livestock as part of Minnesota's family farm system of agriculture. These beginning farmers need opportunities to enter into livestock farming that do not require large amounts of debt be incurred and that rely on low-cost, efficient livestock systems.

The Citizen Task Force Recommends:

1) The Legislature create a program that provides beginning dairy farmers with \$1 per hundred weight of milk produced not to exceed \$10,000 per year. This legislation, entitled "Milk Production Development Program" was introduced in the 2004 legislative session as Senate File 2656.

2) The legislature create a Minnesota Dairy Investment Credit. This program would provide a state tax credit to dairy farmers who make improvements in their operation. The credit would be 10 percent of up to \$500,000. Included in eligible expenditures are upgraded milking parlors, pasture development, fencing, watering facilities and on-farm possessing.

3) Minnesota create and implement a program to preserve farmland for future generations and keep it affordable for beginning farmers. The state can do this by creating a program to purchase the development rights of farms and tap into federal money available through the Purchase of Agricultural Conservation Easement (PACE) program.

III. Promoting Livestock Farming that Benefits the Environment

Livestock farmers can play a major role in protecting our environment by using environmentally minded farming practices that improve water quality, reduce greenhouse gas emissions that exacerbate climate change problems, and create wildlife habitat. This is best accomplished when livestock is raised on diversified family farms.

The Citizen Task Force Recommends:

1) The Minnesota Legislature pass a bonding proposal to fund the “Green Lands, Blue Waters” proposed initiative at the University of Minnesota. This initiative is working to improve water quality, wildlife habit and human health by promoting agricultural systems based on perennial crops such as grass and hay which significantly reduce soil erosion and chemical runoff. With a focus on non-regulatory incentives that “keep working lands working,” livestock raised on pasture is an important feature of the program.

2) The Minnesota Legislature pass a bonding proposal to fund the purchase of multi-year easements on farmland to grow perennial crops such as pasture and hay. Well-managed perennial systems, including livestock that is raised on pasture, reduce erosion, protect water quality and enhance wildlife habitat. This program would be similar to the Minnesota Conservation Reserve Enhancement Program but instead of idling farmland would operate with the philosophy of “keeping working lands working.”

3) The Minnesota Legislature allow land in the Minnesota Conservation Reserve Enhancement Program to be used for grazing livestock as long as there is a state approved grazing plan that protects the environment and wildlife habitat.

4) The Minnesota Legislature restore citizens’ ability to petition for environmental review of proposed large feedlots. This long standing right, which has protected the rural environment, was stripped in the 2003 legislative session.

IV. Creating Local Food Systems That Benefit Farmers, Consumers & Rural Communities

Minnesota must proactively meet the growing consumer demand for food that is family-farm raised, locally grown and identity-preserved, using organic, grass-based, deep-straw and other ecologically sound farming systems. Failing to do so will put Minnesota farmers at a major competitive disadvantage in meeting the growing demand for healthy and locally grown food.

The Citizen Task Force Recommends:

1) The Legislature provide funding for community-based processing, handling, and distribution systems for locally produced food from sustainable and organic family farms

2) The Legislature restore \$200,000 in funding for the Minnesota Institute for Sustainable Agriculture (MISA) Information Exchange program.

3) The University of Minnesota’s Alternative Swine Program be extended and expanded to include dairy and other livestock systems. The Minnesota Legislature must provide \$150,000 per year to do this.

4) The Minnesota Legislature provide \$200,000 in funds for the Demonstration Grant Program in the Energy and Sustainable Agriculture Division of the Minnesota Department of Agriculture.

V. Protecting Rural Democracy

Strong local communities depend on strong local control. Therefore, local communities should maintain the right to put in place and enforce local planning and zoning ordinances stricter than state minimum standards that protect the health and well being of their communities from potentially harmful development.

The Citizen Task Force Recommends:

1) The Legislature uphold the current rights of townships and counties to enact zoning ordinances to regulate development in their communities, including large feedlots.

Introduction

A Report for the Majority of Livestock Farmers

The tables on this and the next page state the facts clearly: Minnesota livestock agriculture is dominated by small- and moderate-sized farms. *This report is designed to benefit the majority of livestock producers in the state.* The Citizen Task Force has developed recommendations for developing a vibrant, sustainable livestock sector in Minnesota. These recommendations are presented in five categories:

- I. Ensuring Fair Prices & Open Markets**
- II. Creating the Next Generation of Livestock Farmers**
- III. Promoting Livestock Farming that Benefits the Environment**
- IV. Creating Local Food Systems that Benefit Farmers, Consumers & Rural Communities**
- V. Protecting Rural Democracy**

We have developed these recommendations with the understanding that our multi-faceted and complex food system extends far beyond the farm and involves the interaction of individuals and institutions with contrasting and often competing goals, including farmers, researchers, input suppliers, farm workers, processors, retailers, consumers and policymakers. The vision we choose will have profound and far-reaching effects on livestock farmers, rural communities and our Minnesota landscape. Ultimately, our decisions now will shape the quality, diversity and source of our food supply for generations to come.

The future of Minnesota’s livestock industry is critical to the future of our rural communities, and our state in general. The 2005 Minnesota Legislature is expected to take up the issue of how to best support and promote Minnesota livestock agriculture. It is vital to discuss strategies that benefit farmers, consumers, the community, and a healthy competitive processing industry in this state.

This report is a work in progress. We will continue to develop recommendations, receive input and work for a livestock agriculture that’s best for the land and people and Minnesota. We anticipate that farmers, consumers and many others will have wisdom to impart to this process, and we are committed to hearing them.

Table 1: Livestock Farms by Animal Unit Size in Minnesota¹

Animal units	No. of operations	% of total
10-49 animal units	3,757	16.7%
50-99 animal units	6,341	26.5%
100-299 animal units	9,511	39.8%
300-499 animal units	1,743	7.2%
500-999 animal units	1,614	6.7%
Over 1,000 animal units	946	4%
	23,912	
(300 animal units = 214 dairy cows, 1,000 hogs between 55 & 300 lbs, or 300 beef cows)		
83% of livestock operations are less than 300 animal units		

Table 2: Animal Unit Definitions²
From MPCA 7020 rules

Dairy cow (over 1,000 lbs)	1.4 animal unit
Beef cow	1.0 animal unit
Hogs	
-over 300 pounds	0.4 animal unit
-between 55 & 300 lbs	0.3 animal unit
-under 55 pounds	0.05 animal unit

Table 3: Types of Livestock operation by size in Minnesota³

Hog Farms					
1-99 head	100-499 head	500-999 head	1,000-1,999 head	2,000-4,999 head	5,000 + head
1,450	2,100	1,000	700	700	250
23%	34%	16%	11%	11%	4%
<i>73% of hog farms are less than 1,000 head</i>					

Table 4: Types of Livestock operation by size in Minnesota³

Dairy Farms					
1-29 cows	30-49 cows	50-99 cows	100-199 cows	200-499 cows	500+ cows
900	2,400	2,900	700	250	50
13%	33%	40%	10%	3%	1%
<i>96% of dairy farms are less than 200 cows</i>					

Table 5: Types of Livestock operation by size in Minnesota³

Farms with beef cows			
1-49 head	50-99 head	100-499 head	500+ head
13,300	1,500	680	20
86%	10%	4%	.1%
<i>96% of beef cow operations are less than 100 head</i>			

I. Ensuring Fair Prices & Open Markets

Policies must be enacted that allow farmers to receive a fair price through open markets. Competition must be restored to the marketplace by limiting corporate concentration and encouraging farmers to use collective bargaining strategies.

Citizen Task Force Recommendations:

- 1) Minnesota's corporate farm law be strengthened. The law places limitations on corporate ownership of farms in order to protect and promote a family farm based system of agriculture. The legislature can maintain and improve the effectiveness of the law by:
 - A) Creating an effective fine for violating the law. *Currently there is no significant penalty for violating the corporate farm law.*
 - B) Requiring that compliance with the law be demonstrated before the state grants articles of incorporation to a farm. The state must verify compliance annually.
 - C) Retaining language in the law that prohibits dairy from being included in the definition of an "Authorized Livestock Farm Corporation."
- 2) The Minnesota Agricultural Bargaining Act be aggressively implemented by the Minnesota Department of Agriculture. The MDA must use the law to create a comprehensive program to assist interested farmers in using collective bargaining to ensure a better price for their products.
- 3) The Minnesota Legislature enhance competition for Minnesota livestock farmers by encouraging the development of producer-owned cooperative processing facilities or independent processing facilities that purchase livestock from independent farmers. This could be done by providing financial incentives similar to what ethanol receives.
- 4) The Legislature pass a resolution urging the Minnesota Congressional delegation to support Country of Origin Labeling (COOL) and a ban on packer ownership of livestock.
- 5) The legislature pass and the state aggressively enforce legislation prohibiting Milk Protein Concentrate (MPC) in food sold in Minnesota. MPC is being imported to the United States and used illegally in food products to displace domestically produced milk. In addition, the legislature should pass a resolution urging our federal delegation to demand the federal government begin enforcing the regulations that prohibit MPC in dairy products.

1) *Why a Strong Corporate Farm Law is Important*

Counties in states with anti-corporate farming laws have fewer families in poverty, lower unemployment and higher percentages of farms realizing cash gains, according to an analysis conducted by two rural sociologists.

Using the 1982 and 1992 Censuses of Agriculture, Tom Lyson of Cornell University and Rick Welsh of Clarkson University analyzed data from the 433 counties in the U.S. classified as "agriculturally dependent"—meaning at least 75 percent of the county's land is used for farming and 50 percent of the county's total gross receipts for goods and services comes from farm sales. They then compared the economic vitality of

counties in states with anti-corporate farm laws to counties in states that had no such restrictions.

Nine Midwestern states—Minnesota, Iowa, Kansas, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota and Wisconsin—have adopted laws that restrict corporate involvement in agriculture. These laws are perennially under attack from large-scale agribusiness interests who argue they stifle economic activity and ultimately hurt farm-dependent counties.

But what Lyson and Welsh found was that, in general, agriculture dependent counties in states with anti-corporate farming laws fared better—fewer families in poverty, lower unemployment and higher percentages of farms realizing

cash gains—economically than agriculture dependent counties in states without such laws.

"A public policy intervention that promotes organizational diversity in agriculture would seem to be needed," conclude Lyson and Welsh. "In this vein, anti-corporate farming laws provide one model."⁶

It is not only important to have strong anti-corporate farm laws on the books. These laws must also have some muscle behind them if they are to be effective. The Minnesota Corporate Farm law has a small \$500 fine for not reporting or certifying with the Minnesota Department of Agriculture (MDA). MDA can wave or reduce the penalty for not making a timely filing. Failure to file a

Solutions from the Countryside

Using collective bargaining to compete as independent producers

Jim Joens always knew he was raising top quality hogs. But what the southwest Minnesota farmer was less sure about was his ability to get paid a fair price for his animals. He markets around 2,000 pigs a year, and packers are increasingly ignoring independent farmers of his size and filling their quota with contracted hogs from large corporate operations. That means farmers like Joens are seen as second-class suppliers, even if they are producing first class pork.

But for the past several years, Joens and half-dozen other farmers in Nobles County have been using the team approach to retain access to a profitable market while remaining independent. The farmers are all small by corporate farming standards—the biggest producer markets 3,600 annually, the smallest around 700. But Joens and his neighbors are collectively shipping a semi-load (about 200 head) of hogs to a packer each week. This gives them enough marketing clout to gain the respect, and the price, they deserve.

The group started in 1997 when a local packer stated that it did not need to issue competitive bids for hogs, since it could fill its shackle space with contracted animals. Joens and the others contacted the National Farmers Organization and started working with Merle Suntken, a marketing specialist with the organization. In return for a commission, Suntken negotiates with the packer and handles the weekly sales arrangements. On Friday mornings, the farmers deliver their hogs to a trucker in Wilmont, who then hauls them to a packer in Sioux Falls.

Suntken meets regularly with the farmers to go over the packer's kill sheet information and to talk about how the animals dressed out. Joens says this has helped him improve the quality of the pork he produces—his animals were dressing out at 51 percent to 52 percent lean, and now are more in the 54 percent to 55 percent range.

One of the biggest benefits of the arrangement is the farmers feel they are able to put some reliability back into their marketing plan. They adhere to the kind of philosophy that professional marketing consultants consistently try to drive home to farmers: don't always get the best price, but a consistent price.

Suntken says one thing independent producers seldom get from packers is face-to-face feedback on how they can improve the quality of the animal they are marketing.

By going over the kill sheet information with the marketing group on a regular basis, Suntken is able to provide that feedback. He estimated the farmers are making \$5 to \$6 extra per hundredweight because they are marketing as a group and are receiving a quality premium.

"It gets you in a more disciplined marketing mode," Joens says of working as a group and marketing on a weekly basis. "We can put out a hogs that are as consistent in weight and leanness as any large producer."

Working as a group with Suntken means the farmers don't have to call numerous packers each week to find a buyer. And using one trucker means less time on the road for each farmer. The other benefits to marketing collectively are less easy to measure, but are just as critical to the farmers' success. They have coffee every Friday while their hogs are being loaded, and they use that time to discuss everything from the markets, to swine management innovations, to each other's families.

"We have a friendly competition going over who can raise the best hogs. The mental support is tremendous," says Joens. "The side benefits can't be counted."

That support has become even more important as the number of independent family hog farmers in the region shrinks. The marketing group itself started out with two dozen farmers shipping two to three semi-loads a week. Joens says one of the reasons more farmers aren't marketing collectively is that promoters of corporate agriculture have convinced the agricultural community—from farmers and feed dealers to lenders and policy makers—that the only way to make it in livestock is to sign exclusive contracts with large integrators.

But Joens says such a model is not the only option, and in fact will only bring more livestock into the state "at any cost," regardless of the impact it has on communities, the economy or individual farmers' profits.

"You can't just put livestock out there at all costs. You have to put profitability back into livestock," says Joens. "If you can get five or six of your neighbors to talk to each other, you can grow and make some money."

required report or the willful filing of false information is a gross misdemeanor. For violating significant provisions of the Minnesota Corporate Farm Law, there is no significant financial penalty. And if a district court finds that a corporation is violating the Corporate Farm Law, that court only has the authority to order the corporations to stop activities and to sell agricultural land within five years.⁷

A number of other states that have corporate farming laws have significant financial penalties. In Wisconsin, corporations can be fined up to \$1,000 per day for each day that they are in violation. In Iowa and North Dakota, corporations can be fined up to \$25,000. In Kansas, corporations can be fined up to \$50,000.⁸

There have been repeated attempts to weaken Minnesota's Corporate Farm Law, including proposals to include dairy in the "Authorized Livestock Farm Corporation" definition. This change would allow up to 100 percent of a dairy to be owned by investors who are not actively engaged in the operation of the dairy and 61.75 percent of the investors in the dairy don't have to be livestock producers. This would enable specified corporations to engage in agricultural production even if none of the shareholders reside on a farm and none of the shareholders actively operate the farm. Such an exemption would open the door for the kind of investment that does not benefit rural communities or our state in general.⁹ (See "Investment" sidebar on page 10 for more on this issue.)

2) Giving Farmers the Power & Tools to Market Collectively

In 1922, Congress passed the Capper-Volstead Act. This act allows farmers to form cooperatives for the purpose of bargaining and price negotiations. The law legalizes collective bargaining for farmers, but does not include mechanisms to make it operational.¹⁰ As a result, several states have passed collective bargaining laws that attempt to make this tool more applicable for farmers.

For example, in 1973 the Agricultural Marketing and Bargaining Act was passed in Minnesota.¹¹ Under this law, if half of the producers of a certain crop in a region form an organization, that organization can negotiate prices with a buyer. If that negotiation isn't successful, the Minnesota Department of Agriculture must mediate.

"It really strengthens the hand of the

farmer,” says agricultural economist Richard Levins, who has studied the law.

Despite its potential, the tool is woefully underutilized by Minnesota farmers—mostly because the majority do not even know it exists. (To date, perhaps the only group of farmers using this bargaining tool is the Southern Minnesota Crop Growers Association, a group of sweet corn and pea growers who sell to Del Monte.)¹²

Levins and others believe there is no reason the Bargaining Act could not be extended so livestock producers could utilize it as a collective bargaining tool. This would work particularly well for livestock farmers that are producing for a specialty market. (See *Solutions from the Countryside* sidebar on this page for an example of hogs farmers who are using collective bargaining).

But the Act itself also needs to be strengthened to bring it more in line with similar laws in states like Michigan. For example, Minnesota’s law does not require binding arbitration, which can put farmers at a severe disadvantage when dealing with a large corporation.

3) Why Support of Independent Livestock Production is Key

Contract livestock production is a key agribusiness tool for concentrating and controlling commodity markets, and actually works against a free and open market. Any commodity where four or fewer industries exert over 60 percent control has the makings of a price cartel (see Table 6).¹³ Farmers have no market price control, and consumers, over time, will pay higher prices as competition diminishes.¹⁴ Subsidies that go into commodities do not stay with the farmer but are moved to higher land and input costs.

Contract livestock production has been a dismal failure for the farmer-producer and local economies, according to William Heffernan, a professor emeritus of rural sociology at the University of Missouri who, along with researcher David Lind, conducted a 30-year study that examined the impact of contract broiler production in Union Parish, Louisiana. The study found, among other things, that return to capital and management goes to the integrating firm located far from the local community.¹⁵

This is only one of many studies that demonstrate contact livestock production is not good for rural communities. In

1999, the Land Stewardship Project reported that between 64 percent and 70 percent of all hogs sold then were no longer part of the open market.¹⁶ That report found that contract hog production was severely reducing the number of opportunities for small- and medium-sized independent farmers to sell their hogs. With fewer buyers and more “captive supply” in the market, there is less competition for independent farmers’ hogs and insufficient information regarding prices being paid. The result is lower prices for hogs produced by independent farmers, even though they may be of equal quality (or higher) when compared to their contracting counterparts. Since that report was released, the number of hogs marketed under contracts has gone well beyond the 70 percent mark, exacerbating the problem for decreasing market competition even further. A 1992 University of Missouri study found that for every \$5 million in new investment in contract swine production, between 40 and 45 new jobs would be created throughout that state’s economy. However a follow-up analysis by University of Missouri agricultural economist John Ikerd found that the creation of those new jobs would come at the cost of three times that number of independent farmers.¹⁷

This is why it is critical to use antitrust enforcement to preserve open, fair markets if we are to have a livestock industry that creates homegrown economic benefits. Part of those market opportunities can be created through the development of local processing facilities for farmers who are seeking out alternative and specialty markets. In addition, on-farm processing creates opportunities for farmers to add value to their products. ○

Table 6: Concentration of Agriculture Markets in 2002¹⁸

Any commodity where four or fewer industries exert over 60 percent control has the makings of a price cartel.

Values are the percentage of the market controlled by the top four firms in each industry.

Beef packers—81 percent

Pork packers—59 percent

Corn exports—81 percent

Pork production—46 percent

Soy exports—65 percent

Soy crushing—80 percent

Grain handling—60 percent

When Considering how to Finance Livestock Enterprises, be Mindful of Who's in Control

Those who control the capital to finance the industry control the industry. When we consider the method to capitalize the industry, we are also considering who will have long-term benefit and who will have long-term control of the industry. Owner operator private enterprises using their own assets to borrow money from generally accepted banking sources remain in control of the segment and have the opportunity to repay the debt and circulate earned income within the community.

Capitalization of a segment of the livestock industry by concentrated capital hurts owner operators because owner operators give up control to the investor or the investment group, who has started a new livestock enterprise in competition with the owner operator. Generally, the investment group or industries will have many sources to derive capital from, and by concentrating the power of this capital, they can withstand economic down turns while owner operators, using their own assets, cannot compete on long term basis.

Producing fruits, vegetables, grains, dairy and livestock raw products creates new wealth for the nation in which it was produced. When these products are exchanged for money in the marketplace, the money is new money that can be distributed throughout the small communities onward into the complete economic system including repayment of debt. This new money is earned money—opposite from borrowed money. Earned money repays debt.

A vibrant healthy competitive marketplace is essential for a fair exchange of new wealth for money. The process of certain individuals who have the ability to invest money for the purpose of creating corporations has capitalized industries that have the ability to utilize our raw material, to manufacture and distribute products throughout the nation and the world. This pooling of capital is healthy if used for the purpose in which it was intended: A processor to remain a processor, a distributor to be a distributor, and a manufacturer to be a manufacturer.

The pooling of capital can be a powerful economic force. This force, if left unchecked, can consume lesser industries and can destroy the private sector.

*— Bob Arndt, President, Minnesota
National Farmers Organization*

II. Creating the Next Generation of Livestock Farmers

Creating incentives and programs that encourage young people to become livestock farmers is critical to maintaining livestock as part of Minnesota's family farm system of agriculture. These beginning farmers need opportunities to enter into livestock farming that do not require large amounts of debt be incurred and that rely on low-cost, efficient livestock systems.

The Citizen Task Force Recommends:

1) The legislature create a program that provides beginning dairy farmers with \$1 per hundred weight of milk produced not to exceed \$10,000 per year. This legislation entitled "Milk Production Development Program" was introduced in the 2004 legislative session as Senate File 2656.

2) The legislature create a Minnesota Dairy Investment Credit. This program would provide a state tax credit to dairy farmers who make improvements in their operation. The credit would be 10 percent of up to \$500,000. Included in eligible expenditures are upgraded milking parlors, pasture development, fencing, watering facilities and on-farm possessing.

3) Minnesota create and implement a program to preserve farmland for future generations and keep it affordable for beginning farmers. The state can do this by creating a program to purchase the development rights of farms and tap into federal money available through the Purchase of Agricultural Conservation Easement (PACE) program.

1) & 2) *How to Invest in Livestock Farming's Future*

The age of the average Minnesota farmer is now past the half-century mark. The greying of American agriculture is being caused by fewer young people entering farming. And that's happening because often the only option presented to them is one that entails massive investment in massive facilities with no guarantee of a fair market for their product.

However, there is a growing group of beginning farmers who are getting into agriculture through creative, low cost means. A recent national conference on beginning farming was filled to capacity. Programs like the Beginning Farmer initiative here in Minnesota often have to turn applicants away.

This new generation of beginning farmers need affordable land, the expertise of established producers, and access to practical production, management and marketing information.

Often, large-scale livestock develop-

ment initiatives are touted as good for beginning farmers. However, this type of development mostly benefits large integrators looking for contract employees to raise their livestock.

Investing in our future farmers does not require systems that rely on raising animals on contract in an expensive, total confinement facility. The start-up costs for a dairy grazer are approximately half the initial per cow costs associated with a confinement system.¹⁹ A deep-straw hoop house swine system can be built for less than a third of the per-pig cost of its full-confinement counterpart.²⁰

When livestock farmers use low-cost systems such as grazing for cattle and deep-straw for hogs, it does not take hundreds of thousands of dollars to get them started on the land. Simple tax credits and other incentives such as low-cost loans can do much to prime the pump, while sending a signal to private lenders and other local businesses that these farmers are worthwhile customers (see *Solution from the Countryside* sidebar on this page).

• • •
"Helping farm families stay on the land and encouraging young farmers to choose livestock agriculture as a way of life offers real opportunity."

—Jim Falk, Minnesota livestock producer & seed dealer

• • •

3) *Farmland for the Next Generation*

Conversion of agricultural land to urban uses is a particular concern as rapid growth and escalating land values threaten farming on prime soils. The close proximity of residential areas to farms is increasing the public demand for environmentally safe farming practices. Public support is building for agricultural land preservation.

Some of Minnesota's best farmland is disappearing due to suburban sprawl and other pressures.

The Purchase of Agricultural Conservation Easement (PACE) program is a federal initiative for preserving farmland while also addressing environmental

degradation. The 2002 federal farm bill has increased interest in PACE by committing nearly \$1 billion in 50 percent matching funds for these programs over the next 10 years. Other states have taken advantage of this program but Minnesota has not utilized it.²¹

Under a Purchase of Development Rights (PDR) program, a landowner voluntarily sells his or her rights to develop a parcel of land to a public agency or a charitable organization interested in natural resource conservation. The landowner retains all other ownership rights attached to the land, and a conservation easement is placed on the land and recorded on the title. The buyer (often a local unit of government)

essentially purchases the right to develop the land and retires that right permanently, thereby assuring that development will not occur on that particular property.²²

Beyond any program requirements for environmental management, however, firmly protecting farmland from development is also an economic prerequisite for the long-term environmental sustainability of agriculture. Sustainable farming requires long-term investments in farm infrastructure, soil quality, knowledge of the farm, and the farm ecosystem. When the market value of land for non-farm purposes rises above its value for farming, the business logic of such long-term investments dissolves. This is especially true when one considers that the average age of American farmers is increasing;

Solutions from the Countryside

Opening the door for beginning farmers

Want to get started in farming? Conventional wisdom is that the only way to get a foot in the agricultural door is with hundreds of thousands of dollars to invest. But a growing group of beginning farmers are getting established on successful farming operations by using low-cost production systems, innovative marketing techniques and by teaming up with established farmers.

Soon after graduating from Luther College in the mid-1990s, Michelle and Roger Benrud set out to launch a dairy operation in southeast Minnesota. They didn't have much money, and knew that building a full confinement milking facility would be prohibitively costly. In 1998, they participated in Farm Beginnings, an educational initiative operated by the Land Stewardship Project. Farm Beginnings provides participants an opportunity to learn firsthand about low-cost, sustainable methods of farming. Farm Beginnings participants take part in a course that teaches goal setting, financial planning, business plan creation, alternative marketing, and low-cost and sustainable farming techniques. Established farmers and other professionals present at the seminars, providing a strong foundation of community resources, networks and contacts for those interested in farming. Hands-on training provides opportunities to apply knowledge gained in the seminars. There are also opportunities to connect with established farmers

through a series of farm visits and one-on-one mentorships.

Through Farm Beginnings, the Benruds not only learned about low-cost dairying system such as controlled grazing, but were able to develop relationships with established farmers in the area who were using the same types of production methods they were interested in using.

Eric and Lisa Klein graduated from the course in 1999. They now raise hogs, pork and poultry near Elgin, in southeast Minnesota. In recent years they've developed a thriving direct marketing business. That is no accident: through Farm Beginnings the Kleins developed a business plan that laid out a practical, profitable strategy for marketing their production.

"By taking the class we were able to narrow down our goals and ideas and kind of put more direction on where we wanted to go with our farm," says Eric.

Studies done in the Midwest indicate one of the biggest barriers to getting started in farming, besides access to land, is lack of good practical information that farmers can apply to their own operations. Forming mentor-mentee relationships with established farmers can make all the difference in the world.

"The networking that Farm Beginnings provided will be the longest lasting benefit," said Roger. "I'll probably keep in contact with the people I've met for many years."

Because of their participation in Farm Beginnings, the Benruds acquired their first 15 cows through an interest-free livestock

loan program operated by the Land Stewardship Project. That loan primed the pump, giving other lenders the confidence to lend the young couple money.

"The bank wasn't interested in even talking to us until we got equity," recalls Roger. "The loan showed other lenders that someone else believed in what we were doing."

Today, they have an 85-cow milking herd near the town of Goodhue. Some of those same farmers that served as their mentors are now partnering with them in a specialty cheese and butter co-op called PastureLand.

The Benruds are proof that there are still creative ways to get established on the land. Dan Miller, a farm management instructor based in Spring Valley, says through good planning and the ability to say flexible, there are more opportunities for beginning farmers.

"You can definitely overcome the obstacles in your path with vision," Miller recently told a Farm Beginnings class.

The program is entering its eighth year and it now has 185 graduates to its credit—60 percent of whom are actively farming.

"I think the program has probably exceeded what we thought it would do," says southeast Minnesota dairy farmer Ralph Stelling, who helped launch the Farm Beginnings program. "It makes me feel a lot better about the future of ag."

why invest in something that takes 10 or 20 years to pay for itself if the land will be sold for a non-farm purpose sooner than that? Once the land is decisively protected, however, the motivation to make those investments is restored. ○

A Minnesota Program to Preserve Farmland that can be Improved²³

Livestock producers in developing areas and across Minnesota are very concerned about the costs of farmland, and the rising costs of property taxes. Minnesota has a program called the Metropolitan Agricultural Preserves Program, and an outstate program called the Minnesota Agricultural Preserves Program. Farmers who enroll in the program receive a property tax credit of \$1.50 per acre called a Conservation Credit. Enrollees are also exempt from special assessments and receive protection from annexation. Enrollees are required to complete an enrollment form that specifies that the land will be kept in agricultural use as defined by statute. The program remains in effect for the farmer indefinitely or until the date an expiration notice is signed. The program and its benefits terminate eight years from the date the expiration notice is filed.

The program has been in use in Minnesota since the early 1980s and is funded by a \$5.00 fee levied by each county on mortgage registrations and deed transfers. The program is consistently underutilized and should be expanded so that farmers could receive more than the \$1.50 per acre.

The outstate program must be expanded and promoted. This program could be especially helpful to a livestock farmer that is in a developing area such as the St. Cloud, Rochester and Mankato areas to give them some relief from the high cost of owning farmland.

III. Promoting Livestock Farming that Benefits the Environment

Livestock farmers can play a major role in protecting our environment by using environmentally minded farming practices that improve water quality, reduce greenhouse gas emissions that exacerbate climate change problems, and create wildlife habitat. This is best accomplished when livestock is raised on diversified family farms.

The Citizen Task Force Recommends:

1) The Minnesota Legislature pass a bonding proposal to fund the University of Minnesota's proposed "Green Lands, Blue Waters" initiative. This initiative is working to improve water quality, wildlife habit and human health by promoting agricultural systems based on perennial crops such as grass and hay which significantly reduce soil erosion and chemical runoff. With a focus on non-regulatory incentives that "keep working lands working," livestock raised on pasture is an important feature of the program.

2) The Minnesota Legislature pass a bonding proposal to fund the purchase of multi-year easements on farmland to grow perennial crops such as pasture and hay. Well-managed perennial systems, including livestock that is raised on pasture, reduce erosion, protect water quality and enhance wildlife habitat. This program would be similar to the Minnesota Conservation Reserve Enhancement Program but instead of idling farmland would operate with the philosophy of "keeping working lands working."

3) The Minnesota Legislature should allow land in the Minnesota Conservation Reserve Enhancement Program to be used for grazing livestock as long as there is a state approved grazing plan that protects the environment and wildlife habitat.

4) The Minnesota Legislature restore citizens' ability to petition for environmental review of proposed large feedlots. This long standing right, which has protected the rural environment, was stripped in the 2003 legislative session.

1), 2) & 3) How Livestock can Help the Environment

Livestock holds great potential for helping creating a landscape that is not only economically sustainable, but environmentally sound. In particular, animal agriculture can help economically justify plant systems such as pasture and hay that leave the land covered in living vegetation for most of the year. Such perennial plant systems have been shown to be better for water quality and wildlife habitat. Livestock agriculture also promotes the use of small grains and other resource conserving systems that protect the soil and break up pest cycles.

During the past 25 years in Minnesota,

perennial plant systems such as alfalfa hay and pasture have been systematically replaced by annual crops such as corn and soybeans. An analysis by University of Minnesota soil scientist Gyles Randall showed that cropping patterns have shifted in a nine-county region in southeast Minnesota. Between 1975 and 2001, corn and soybeans went from 64 percent of all farmed land, to 82 percent. Those increased acres of row crops have come at the expense of perennial landscapes such as pastureland, wetlands and forests. Even hay ground, another perennial plant system, has been going by the wayside. Randall found that hay plantings dropped from 22 percent to 15 percent of all acres in that nine-county

• • •
"Let's get out of the mind-set of just what can we do with corn and soybeans....livestock can play such a big role in dealing with water quality problems."

— Steve Morse,
Endowed Chair in Agricultural Systems at the University of Minnesota

• • •

region during the same period.²⁴ It's the same—in some cases worse—throughout Minnesota.

One estimate is that the agricultural sector accounts for about 7 percent of the total greenhouse gas emitted in the United States. This estimate includes emissions from soil management, manure management, rice cultivation, field burning and farm equipment fossil fuel combustion. Livestock contributes almost 30 percent of agriculture's total greenhouse gas emissions. While the agricultural industry accounts for a relatively small amount of total greenhouse emissions, incorporating more diversity into farming could help mitigate current climate change trends.

For example, Rotational grazing systems for dairy and beef cattle emit less greenhouse gas emissions than confinement operations because of four main factors:

1) Rotational grazing systems reduce the soil erosion associated with row cropping since the animals are able to feed directly on the forages growing on the land. Less soil erosion means less carbon emissions from the soil.

2) When manure remains in the dry state it generally emits little to no methane.

3) The manure adds to the fertility of the soil, thus reducing the need for chemical nitrogen application. This increases the productivity of the land, which in turn raises the amount of carbon captured and stored.

4) Little soil disruption occurs on grazed lands, therefore maintaining root biomass year-round, further reducing the potential for soil erosion and the loss of soil carbon. Some research even suggests that grazed lands tend to capture and store greater levels of the carbon than land otherwise left untouched.

Swine operations that utilize deep-bedded straw practices (often referred to as hoop houses) allow for manure to mix with the straw that is continually applied to the facility's bedding pack. This prevents the manure from emitting methane by keeping it relatively dry, and helps stabilize the nutrients within the manure. In addition, as the straw and manure mix decomposes, the bedding pack generates heat, which helps keep the hogs comfortable in colder weather. Such a natural heat generation system can cut energy use, further reducing greenhouse gas emissions. And this compacted manure and straw mixture can be further composted and spread on farmland in

place of fertilizers.²⁵

The Minnesota Legislature must recognize the potential of livestock to help the environment by supporting more research and the funding of research at the University of Minnesota that supports diverse agricultural systems and family farmers.

"Green Lands, Blue Waters: A Vision and Roadmap for the Next Generation of Agricultural Systems" is an initiative involving land grant universities, non-governmental organizations and government agencies in seven states, including Minnesota. Green Lands, Blue Waters is working to improve water quality by promoting agricultural systems that establish more perennial plants on the landscape. The initiative's approach is to do this in a non-regulatory way that "keeps working lands working" and improves economic diversity in rural areas.²⁶ (See *Solutions from the Countryside* sidebar on page 16 for more on how diverse farming systems can help the environment).

4) The Importance of Citizen Initiated Environmental Review

Citizen-initiated environmental reviews of animal feedlots have played a key role in protecting Minnesota's air, water and land, according to a 2003 study based on an analysis of Environmental Quality Board records and citizen petitions, as well as interviews. The study looked at 41 citizen petitions for environmental review of feedlots filed between 1998 and 2002. It found that:

1) The overwhelming majority of petitions are filed by local residents who use their right to petition for environmental review as a means to have significant environmental concerns addressed. In many cases, it was the only means available to them.

2) The right to petition for environmental review has resulted in the concerns of neighbors to proposed projects being brought to the attention of the appropriate government agency, resulting in protection of the environment.

3) The permitting process for animal feedlots cannot effectively be used as a substitute for the current right to petition for environmental review.

Large agribusiness firms claim the environmental review process, which was put in place by the Minnesota Environmental Policy Act over 30 years ago, is

systematically abused by groups who are opposed to large-scale factory farming. However, the "Benefits to Minnesota of Citizen-Initiated Environmental Review" analysis found that the petitions all listed authentic environmental concerns that were site and project specific, and that the overwhelming majority of the signers were local residents.

Environmental issues cited in the petitions included concerns that sensitive geology in the area would make sources of drinking water particularly vulnerable to manure contamination, or that the close proximity of houses to a manure facility would make homeowners vulnerable to emissions of hazardous gases such as hydrogen sulfide. In one case, a 7.3 million gallon earthen manure lagoon would have been built in an area of southeast Minnesota where sinkholes and karst geology make the groundwater extremely vulnerable to contamination.²⁷

The 2003 Minnesota Legislature stripped citizens of the right to petition for environmental review of large feedlots. ○

Solutions from the Countryside

How farms can help water quality

When southeast Minnesota dairy farmers Dan and Muriel French hosted a field day in August 2004, they got the environmental seal of approval from a water quality expert.

“We see virtually no runoff,” said Larry Gates, a watershed coordinator for the Minnesota Department of Natural Resources.²⁸

That’s because the French farm is covered in perennial plants such as grass and hay. Studies and anecdotal evidence show that land covered with perennial plants such as grasses, hay crops and trees is much less prone to erosion and runoff when compared to acres planted to annual crops such as corn and soybeans. Perennial plant cover slows down the water flow, provides year-around protection from the soil-loosening effects of rainstorms, and gives precipitation a chance to soak into the soil structure.

Steve Morse, who is working with initiative called “Green Lands, Blue Waters,” says having row crops dominate the landscape is not good for water quality.

“With row crops, we only have functional agricultural systems on the landscape two or three months out of the year,” he says.

But returning more plant cover the land doesn’t mean retiring it and excluding farming practices. In fact, it’s become clear in recent years that working farmland can play a critical role in reducing runoff:

- A three-year study by the Minnesota Cooperative Fish and Wildlife Unit of six farms practicing management intensive rotational grazing in southeast Minnesota found that this technique can significantly reduce the amount of sediment flowing into a waterway. The study also found that a stream degraded by overgrazing starts to recover as it flows through a rotationally grazed area...Fecal coliform levels in waterways were consistently lower in the rotationally grazed sites when compared to continuously grazed sites.²⁹

- Studies done in Minnesota’s Sand Creek watershed documented how each acre of a cornfield lost 10 tons of soil during a rainstorm. Up the road, each

acre of a field covered in grasses and hay lost 53 pounds of soil during the same storm.³⁰

- Nitrate-nitrogen runoff from fields planted to perennial plants such as grass or hay can be 30 to 50 times lower when compared with fields in a corn-soybean row crop system, according to an ongoing University of Minnesota Study that’s been conducted in the southern part of the state since 1973. Grazing makes it financially feasible to establish large tracts of perennial grasses in runoff-prone areas.³¹

- Recently, University of Minnesota studied fish habitat in two Minnesota watersheds: Wells Creek and the Chippewa River. Wells Creek flows through steep land in southeast Minnesota before draining directly into the Mississippi. The Chippewa flows through the flat former prairies of western Minnesota before hitting the Minnesota River.

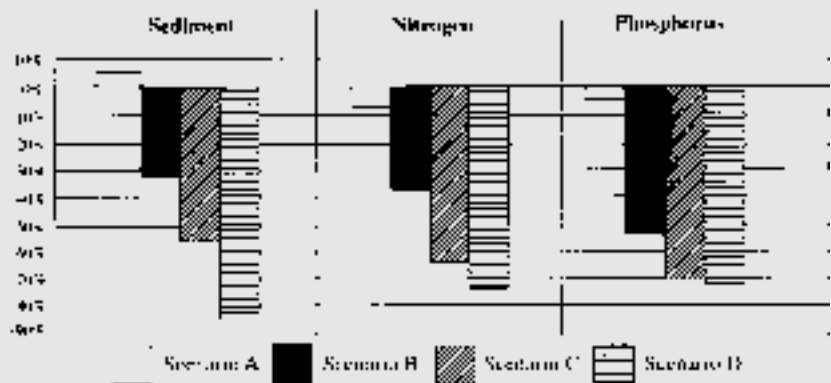
The researchers used modeling to predict what would happen to sediment loading in the two watersheds based on four land use scenarios. The scenarios ranged from extension of current farming trends in each watershed (Scenario A: fewer and larger farms, with increased acreage in row crops

and the loss of small and medium-sized livestock farms) to conversion of row crop acres to year-round permanent plant cover such as grass, hay and trees (Scenario D). Under this last scenario, land would be rotationally grazed for livestock production, diverse cropping rotations would be implemented to build soil quality, and prairies and wetlands would be restored. For the modeling study, all land use activities were simulated over a 50-year period (1950 through 1999).

As Table 7 shows, land use changes led to reductions in sediment loading of up to 84 percent in Wells Creek and 49 percent in the Chippewa River. These land use changes also produced other water quality benefits. How did the reductions come about? The presence of permanent, year-around vegetation on the land was the key.

By getting more perennial vegetation on the land in the form of grasses, hay crops and trees, water runoff was reduced as much as 35 percent in both watersheds.³²

Table 7: Watershed Changes—Scenario Comparisons
Change From Baseline in Wells Creek Watershed³³



IV. Creating Local Food Systems that Benefit Farmers, Consumers & Rural Communities

Minnesota must proactively meet the growing consumer demand for food that is family-farm raised, locally grown and identity-preserved, using organic, grass-based, deep-straw and other ecologically sound farming systems. Failing to do so will put Minnesota farmers at a major competitive disadvantage in meeting the growing demand for healthy and locally grown food.

The Citizen Task Force Recommends:

- 1) The Legislature provide funding for community-based processing, handling, and distribution systems for locally produced food from sustainable and organic family farms
- 2) The Legislature restore \$200,000 in funding for the Minnesota Institute for Sustainable Agriculture (MISA) Information Exchange program.
- 3) The University of Minnesota's Alternative Swine Program be extended and expanded to include dairy and other livestock systems. The Minnesota Legislature should provide \$150,000 per year to do this.
- 4) The Minnesota Legislature provide \$200,000 in funds for the Demonstration Grant Program in the Energy and Sustainable Agriculture Division of the Minnesota Department of Agriculture.

1) *Reconnecting Consumers & Farmers*

Consumers, through their food purchases, send strong messages to producers, retailers and others in the system about what is important to them.

Food-buying dollars are appropriately seen as clout, and consumers are choosing to spend dollars as a vote for or against food production methods. More people want to understand how their food is produced and who is producing it. Consumers are becoming more active participants in the food system.

Food cost and quality have always influenced consumer choices, but consumer perspectives have broadened, so that environmental quality, resource use, animal welfare and social equity issues are also considered in shopping decisions. These perspectives are driving the growth in farmers markets, organic foods, natural and whole food supermarkets, community supported agriculture, eating and retail establishments specializing in local and fresh foods, and community-based food systems.

Consumers are increasingly supporting

the choices provided by family and sustainable farming. Coalitions have formed to change and improve the food system and encourage a long-term view of food production, distribution and consumption.

For example, the Twin Cities Food Council states that it values the connections between producers, processors, distributors, and consumers of food and sense of *community* and commitment to place.

Increasingly, the nonmarket costs associated with our modern food system are starting to come to light. These are costs that don't show up on the price tag for a pound of pork, gallon of milk or head of lettuce, but they impose "expenses" on society just the same. Depopulated rural areas, eroded soils, contaminated water and decimated wildlife habitats are just some of the costs industrialized agriculture is able to externalize. Now, a study out of Iowa shows that the conventional food distribution system carries a hefty, nonmarket price tag as well — and the atmosphere itself is footing the bill.

The study, conducted by Iowa State

• • •

A strong incentive driving the decentralized food system model is that it provides powerful, low-cost food safety and food security assurance. When food production and sources are not concentrated and centralized, it becomes much less vulnerable to attacks of terrorism and disease.

• • •

University's Leopold Center for Sustainable Agriculture, looked at three local projects in Iowa where farmers sold directly to institutional markets such as hospitals, restaurants and conference centers. On average, the "local food" traveled 44.6 miles to reach its destination. That compares with 1,546 miles if the food items had arrived from conventional national sources, report the study's authors.

So what kind of "cost" does all that well-traveled food impose on society? A major cost is the massive amounts of carbon dioxide emissions produced by the extra burning of fuel. Carbon dioxide emissions are considered a major factor in the development of greenhouse gases in the atmosphere. The study's authors estimated that growing and transporting 10 percent more of the produce for Iowa consumption in a locally based food system (direct marketing to institutions, Community Supported Agriculture, farmers' markets, etc.) would result in an annual reduction in carbon dioxide emissions ranging from 6.7 to 7.9 million pounds, depending on the system and truck type.³⁴

This is just one of many studies that show the critical need for a more community-based food system. In Minnesota, community-based food systems are now active in a number of locations around the state, including the Southeast Minnesota Food Network, Pride of the Prairie, Superior Grown Foods, Whole Farm Co-op, Southwest Poultry Co-op, Prairie Farmers Co-op and Triple Rivers Producers.

These systems provide an emerging opportunity for livestock farmers to capitalize on more market options and retain a larger portion of the retail food dollar.

A strong incentive driving the decentralized food system model is that it provides powerful, low-cost food safety and food security assurance. When food production and sources are not concentrated and centralized, it becomes much less vulnerable to attacks of terrorism and disease.

Nutritional advantages are also linked to a number of animal production systems. For example, grass-based systems yield multiple benefits, and grass-fed animal products have many health attributes.

The type of *E. coli* bacteria responsible for most cases of human illness and death is called "E. coli 0157:H7. Studies have shown that significantly less *E. coli* bacteria is present in the lower intestine of grass-fed animals. In 1998, researcher Diez-Gonzalez and colleagues from Cornell University drew worldwide

attention when they reported that switching cattle from grain to grass lowered the production of acid-resistant *E. coli* bacteria.³⁵

Minnesota livestock producers are well positioned to enter the growing organic market. In doing so, they increase acres in resource protecting pasture and forage crops, and improve markets for Minnesota grown organic feed grains. The expansion of organic livestock production in Minnesota also has the potential to improve local and regional economic activity, by providing opportunities to seed industries, feed mills, slaughter facilities, creameries, food processors and distributors, retailers, restaurants, and more. According to the USDA's Economic Research Service, the number of certified organic beef cattle, milk cows, hogs, pigs, sheep, and lambs in 2001 was up nearly four-fold since 1997, and up 27 percent from 2000 to 2001. Poultry animals raised under certified organic management—including laying hens, broilers, and turkeys—showed even higher rates of growth during this period.

Minnesota ranks sixth overall in certified acreage in the U.S., with 4.4 percent of the total U.S. certified organic acres. Minnesota ranked fourth in the number of certified organic farms. Minnesota ranked first in acres of organic corn, soybeans, and rye, and second in organic buckwheat, third in organic pasture and hay, fifth in alfalfa, and sixth in wheat, barley, and millet. Minnesota ranked seventh in organic milk cows, hogs, and pigs, and ninth in organic beef. Retail organic food sales showed strong and consistent growth at more than 20 percent per year during the 1990s, a trend that industry sources predict will continue. Retail organic sales reached \$9.5 billion in 2001 and are expected to grow to \$20 billion by 2005.

Organic beef sales reached nearly \$10 million last year, and are expected to grow 30 percent annually through 2008. The demand far exceeds the supply. According to an analysis done by agricultural economist Luanne Lohr, "Counties with organic farms have stronger farm economies and contribute more to local economies through total sales, net revenue, farm value, taxes paid, payroll, and purchases of fertilizer, seed, and repair and maintenance services."³⁶

Grass-based Farming Systems & Human Health

Recent research has shown that grass-fed livestock may be a key source of human health benefits:

Omega-3 Fatty Acids

"Statistically, there's about a two-fold increase in omega-3 fatty acids, though there have been reports of a ten-fold increase depending on the type of forage the cattle are fed," says Chris Kerth, an Auburn University assistant professor of animal science.

On Sept. 8, 2004, The Food and Drug Administration announced that it will allow foods containing omega-3 fatty acids to carry a qualified health claim that says eating the product may reduce the risk of heart disease "It is our hope that this new health claim will assist consumers as they work to improve their diets by selecting the right foods to improve their health." said acting FDA commissioner Lester M. Crawford.³⁷

CLA

Grass-based animal foods are the richest known source of another good fat called conjugated linoleic acid or CLA. CLA may be one of our most potent cancer fighters. Recently Finnish researchers found that the more CLA in a woman's diet, the lower her risk of breast cancer. Women who consumed the most CLA had an amazing 60 percent lower risk. According to the research team. "A diet composed of CLA-rich foods, particularly cheese, may protect against breast cancer in post menopausal woman."

Cheese from a grass fed ruminant has five times more CLA cheese from a grain-fed animal, according to Tilak Dhiman—a professor in Utah State University's Animal, Dairy and Veterinary Sciences Department.³⁸

2) The Importance of Funding MISA

MISA's Information Exchange is a clearinghouse of information on sustainable agriculture and a collaborative effort of multiple stakeholders and information providers. In 1995, the Minnesota State Legislature allocated money for MISA to work with the Minnesota Department of Agriculture's Energy and Sustainable Agriculture Program to develop and disseminate sustainable agriculture information. In 2003, The Minnesota Department of Agriculture eliminated funding for this program to make up for budget shortfalls.

The Information Exchange maintains a popular web site (www.misa.umn.edu), which is constantly evolving to meet new needs. It currently contains: a) an interactive "Ask MISA" function to field sustainable agriculture questions, b) Calendar of sustainable agriculture events, c) announcements, d) a searchable database of resources, e) links to related web sites, f) forum section which contains news and research articles.

Development of the Information Exchange's educational materials is a collaborative effort. Input from farmers, students, faculty, and community groups is used at all stages of the development process (to identify and prioritize topics, identify project team members, and to write, review, and disseminate the materials). Ten publications are available in print and in full text on-line.³⁹

3) Alternative Swine Task Force

The Alternative Swine Production Systems Program came into existence in 1997 with funding from the legislature via the Ag State Special to the University of Minnesota. The work is informed by an Alternative Swine Task Force consisting of farmers, university faculty, extension specialists, and other citizens who are concerned about how hog production affects the environment and small communities in rural America. A coordinator was also hired to help carry out the mission of the program, and serve

as liaison between the Task Force and the University.

The Alternative Swine Task Force has been instrumental in getting producer-driven research conducted at the University of Minnesota. In particular, it helped drive the development of a research initiative at the West Central Research and Outreach Center in Morris. Minnesota farmers have long called for research that examines the viability of deep-straw swine production systems, as well as the feasibility of raising pork with alternative feeds such as small grains. A burgeoning market for pork produced without antibiotics in humane conditions has made such research even more critical.⁴⁰

This research is now being done at Morris, as well as other University facilities, due in large part to the Alternative Swine Task Force's efforts. These research efforts are nationally recognized not only for their contributions to animal science, but because they serve as an example of how farmers and other citizens can have meaningful input into the land grant agenda. The Swine Task

Lack of food in farm country starves local economies⁴¹

It's the ultimate irony of our modern agricultural system: the most heavily cultivated regions in this country actually produce very little food for local consumption. This factory model of farming-import the inputs; export the outputs-means not only is food not circulated locally, but neither is money. Input suppliers, food processors and grocery store chains owned by national companies pocket the profits.

A report from the nonprofit Community Design Center documents the extreme economic gap such a system is creating in one seven-county area of southeast Minnesota (an area long known for its high production of crops and livestock). Using statistics gleaned from state and federal agencies, *Finding Food in Farm Country: The economics of food and farming in Southeast Minnesota*, documents that:

- The 8,436 farms in southeast Minnesota sold \$866 million worth of farm products in 1997.
- However, the region's farmers spent \$947 million raising this food. This is \$80 million more than they earned by selling their products.
- Southeast Minnesota farm families

spend about \$400 million annually purchasing inputs and credit from distant suppliers.

- The 303,256 residents of southeast Minnesota spend \$506 million annually buying food, almost all from producers outside the state.

- This means as much as \$800 million each year (about 10 percent of all household income) flows out of the region because of this agricultural system.

The study comes up with some conclusions that run counter to the conventional wisdom that increased productivity of commodities will save rural communities. Based on research that shows locally circulated dollars produce much more economic development, the authors write that, "...the region's farmers could reduce their losses by growing fewer commodities for the agribusiness economy, and consumers could reduce their losses by purchasing more food directly from producers. The flows of money created-internal to the region-would likely be smaller than from those now found in the mainstream farm and food economy. Still, each dollar would do more to create wealth for the region's residents."

What can be done? The report identifies

several opportunities for circulating food, and thus the money associated with it, locally. It cites examples of efforts on the part of a restaurant, an organic foods cooperative and a small town grocery to support locally produced food in southeast Minnesota. It also describes a Community Supported Agriculture (CSA) operation in northeast Iowa that is supplying rural consumers with fresh food. The CSA has teamed up with other farmers in the area to expand its line of food offerings, as well as to begin supplying local institutions such as nursing homes. Perhaps the best news found in *Finding Food in Farm Country* comes in the form of the "Resources" section in the back. It lists dozens of southeast Minnesota farms, meat lockers and other businesses that make money by focusing on local production and consumption of food.

Will such initiatives save rural communities? No, concludes the report. But they can go a long way toward building wealth from within using local resources. In rich farming regions, such wealth is based on local food-and locally circulated food dollars.

Force model could be replicated and utilized to help other types of farmers—dairy producers for example—have critical input into land grant research.

4) Supporting On-Farm Research

Within the past two years, the Minnesota Department of Agriculture has substantially cut the funding for the “Demonstration Grant Program” of the Energy and Sustainable Agriculture Division of the Minnesota Department of Agriculture. The Demonstration Grant Program provides funds for farmers, agricultural researchers, educators and nonprofit groups to explore innovative and creative ways to enhance the sustainability of a wide range of farming systems. Grants of up to \$25,000 are awarded on a competitive basis for up to three-year demonstration projects. Projects have demonstrated management intensive grazing, diversified cropping systems, soil fertility and manure management, alternative weed management, low capital beginning farmer strategies, and marketing and specialty crop opportunities.⁴² ○

Solutions from the Countryside Cedar Summit Farm & consumers

In recent years there’s been a lot of talk about how “value added” agriculture can return profits to the farmer. There has also been a lot of talk about how farmers need to respond to the needs of consumers if they are to remain competitive. Dave and Florence Minar are living examples of how a dairy operation can use on-farm processing, innovative marketing and top-notch management to build a lucrative relationship with consumers who care about how their food is raised.

The Minars produce milk with about 175 cows on 300 acres near the town of New Prague, about a 30-minute drive south of the Twin Cities. In 2001 they set up an on-farm processing plant. The plant, which was manufactured by an Israeli company, is especially designed for moderate-scale on-farm processing. Today, the Minars market their milk as a mix of products under their Cedar Summit label—fluid milk, yogurt, ice cream, sour cream—in 60 stores in the Twin Cities area.

Dave recently said in a *Successful Farming* magazine cover story that it was a “near seven-figure investment.” But the value it is adding to their milk is tremendous. The Minars can take 100 pounds of milk and make it worth \$60 as drinking milk. When they make yogurt out of it, the value rises to \$190 per hundredweight. The \$13 per hundredweight they could receive on the regular market for their milk pales by comparison.⁴³

The three-year-old enterprise has hit plenty of rough patches, and the Minars expect to learn plenty of hard lessons before they can proclaim it a complete success. However, adding value to their milk before it leaves the farm means one thing is returning to Cedar Summit: members of their family. All five Minar children and their spouses are part of various aspects of the dairy business.

The Minars are the first to concede that they couldn’t make a go of it if they

were trying to go head-to-head in the conventional market with the likes of Land O’ Lakes. They receive a premium price for their milk because it is produced by cows that rotationally graze carefully managed pastures; grass-based food products are in high demand these days, and consumers are willing to pay for them. Cedar Summit products carry the Food Alliance Midwest certification seal, which means the milk is produced under stringent environmental and animal welfare standards. The Minars have also developed a personal relationship with consumers over the years. Before they built their processing plant, the family direct-marketed pasture-raised beef, pork and chickens to area consumers. These early forays into value added agriculture gained the family a reputation as good stewards that produce a high quality product. When Dave and Florence made a recent appearance at the Minnesota State Fair during a Food Alliance Midwest/Minnesota Farmers Union event, consumers approached them as if they were celebrities.

One of the reasons the Minars are popular with consumers is because they are always willing to answer questions about their production methods (they often host school tours). Those people skills, and the farm’s reputation as a good environmental neighbor have become even more important in recent years—Scott County is one of fastest growing regions in the Midwest, and the Minars are increasingly finding themselves surrounded by new rural residents who don’t understand farming. But many of these new neighbors do understand what good food and good land stewardship is all about.

“We plan to stay here, and part of it is having the animals out and not contributing to the smell and being a good neighbor,” says Dave. “And if that means providing food directly to consumers then that’s part of it too.”⁴⁴

V. Protecting Rural Democracy

Strong local communities depend on strong local control. Therefore, local communities should maintain the right to put in place and enforce local planning and zoning ordinances stricter than state minimum standards that protect the health and well being of their communities from potentially harmful development.

The Citizen Task Force Recommends:

1) The Legislature uphold the current rights of townships and counties to enact zoning ordinances to regulate development in their communities, including large feedlots.

The Benefits of Local Democracy

Township governments provide mechanisms for reducing conflict, protecting citizens' rights, and building residents' trust in government while not negatively affecting state livestock revenues. Weakening township zoning powers would negatively affect the state's livestock industry and rural communities.

Statistics from the Economic Research Service of the USDA show that states which allow local governments zoning authority of livestock operations contribute similar or higher percentages to the total U.S. value of livestock production than states that prohibit local control.

Table 8 shows the value of livestock production for eight states as a percent of the total United States value of livestock production over a seven-year period. Four of the states allow local governments zoning authority over livestock production and four do not. *These numbers show that there is no negative correlation between allowing local governments zoning authority of livestock operations and the health of a state's livestock industry.*⁴⁵

A conflict resolution tool

Township governments provide a forum for resolving conflicts through

establishing ordinances and holding annual public meetings. The town board must publish every proposed ordinance in the designated official newspaper within the township allowing for public comment before adoption. Annual town meetings allow residents to help guide most of the activity that occurs within their township. In each instance, residents may become active participants in the governmental decision making process thus providing them with a sense of security and trust in government.

Zoning ordinances allow local governments to protect against depreciation of property values within the community. A growing number of studies

Table 8: Individual States' Percentage of total United States Value of Livestock Production⁴⁶

		1997	1998	1999	2000	2001	2002	% Change (1997-2002)
With Local Control	Minnesota	4.2%	4%	3.7%	3.9%	4%	3.9%	-0.3%
	Nebraska	5.7%	5.4%	5.6%	5.9%	5.7%	6.2%	+0.5%
	Wisconsin	4.2%	4.8%	4.4%	3.9%	4.2%	4%	-0.2%
	South Dakota	1.8%	1.8%	1.9%	2.2%	1.7%	2.0%	+0.2%
Without Local Control	Iowa¹	5.8%	5.1%	4.9%	5.8%	5.6%	5.4%	-0.4%
	Illinois²	2.0%	1.7%	1.6%	1.7%	1.7%	1.7%	-0.3%
	Michigan	1.4%	1.4%	1.4%	1.3%	1.4%	1.4%	-0%
	Missouri³	2.9%	2.6%	2.6%	2.7%	2.5%	2.5%	-0.4%

show that large confinement livestock operations negatively affect property values. The level of negative affect is directly proportional to the size and location of the livestock operation. Township governments obtain a majority of their revenue through property tax, thus any development that reduces residential property values hurts townships financially.

Iowa State University's Center for Agriculture and Rural Development found that, between the mid-1990s and 2002 in Iowa, larger feedlot operations decreased property values by as much as 11 percent in counties that have large concentrations of livestock units. Local governments can reduce the negative impact by enacting ordinances that limit the size of livestock operations and set location parameters.⁴⁷

Those in support of eliminating or reducing local governments authority often claim that larger livestock operations increase the number of jobs in a community, thus increasing economic activities within communities. However, Iowa, a state which has seen recent increase in the size of farms and decrease in the number of overall farms, has not seen the employment opportunities promised by these larger operations. Larger operations have displaced jobs, provided low wage jobs for non-local residents, and replaced manual jobs with mechanical

Townships are responsible for the upkeep of 47 percent of Minnesota's roads. Large feedlot operations dramatically increase the wear and tear on rural roads. Large confinement operations require larger trucks to be on the roads and generally use larger equipment that the rural roads may not be equipped to carry. Therefore, when adopting agricultural zoning ordinances, local governments often prepare and analyze traffic impact statements. These reports help township governments understand the carrying capacity of the roads and if larger feedlot operations are to move into the area, it provides a cost estimate of upgrading the roads. Most roads in rural townships are gravel and if a large farming operation were to move into the area roads used by the farm need to be upgraded to asphalt (9-ton carrying capacity).⁴⁸

Local economies & large-scale livestock

During the 1940s, sociologist Walter Goldschmidt compared two rural California communities and found the one

The View from Main Street

Over the past two years, main street business owners have expressed rising concern over proposed state government initiatives that would abridge local control over feedlot permitting as a method to facilitate large-scale dairy development. These business people say such government initiatives make poor business sense as represented by the following comments:

- "The few large operations we know around here don't buy building supplies from us; they buy from outside our area," said the owner of a prominent Morrison County lumber company.
- "Large-scale dairies demand three months advance in feed and supplies from our elevator without payment of principal and interest. We can't afford to put that kind of credit risk on our books," said the manager of an area grain elevator and feed supplier.
- "Policies that replace our area's dairy farms with a few big operations don't make business sense," said a dairy equipment supplier.
- "Local dairy farmers came in to buy new trucks when their milk checks increased which we don't see from large operators," said a Pierz area auto dealer.

— Jeff Kunstleben, Minnesota Dairy Farmer & President of Minnesota COACT (Citizens Organized Acting Together)

supported by diverse, family-sized farms was significantly better off socially and economically, while the town surrounded by large corporate operations had a much lower quality of life.⁴⁹ A 1992 University of Minnesota examination of the spending patterns of 30 farmers selected from the membership of the Southwest Minnesota Farm Business Management Association revealed that for livestock intensive operations, the percentage spent locally (defined as within a 20-mile radius of the farm) declined dramatically with an increase in the size of the operation.⁵⁰

A University of Minnesota study conducted in 1995 used economic statistics, census figures and interviews with residents of the Green Isle, Minn., area to examine the impact of dairy farming on a local community. The study showed that between the 1970s and 1990s, the number of farmers serving the local creamery dropped from 1,400 to 960. The larger dairy farms (more than 300 cows) that started dominating the area bypassed local suppliers, reducing the need for Main Street businesses.



“Meanwhile, economic and social activity in Green Isle declined, retail sales dropped by 81 percent between 1979 and 1989, the public dance hall closed, and the grade school adjourned permanently.

Today, a collection of main street stores, feed mills, and a manufacturing plant remain idle,” reported the study’s author.⁵¹

For a study done on 1,106 Illinois

towns, detailed annual sales tax data covering the period between 1981 and 1997 were obtained by researchers at Illinois State University. The researchers were then able to track trends in retail spending in these towns, a good sign of the economic vitality of a community.

During the study period, towns of “moderate” hog concentration experienced real per capita spending increases of 1.93 percent annually. Communities experiencing “rapid” concentration in hog production had a real per capita spending increase of 1.2 percent annually (“rapid concentration” communities are those in which the percentage of hogs sold annually by farms with sales of 3,000 or more animals increased by 30 percent or more during the study period). The difference in economic growth was particularly striking in the 1990s, a time when average swine farm size increased dramatically.

The researchers then went one step further to address the concern that factors other than changing structure in swine production might explain the differences. They developed a statistical model to measure the effect of increasing hog concentration while holding other determinants of a town’s economic growth constant. But it made no difference: the preliminary results of this research confirm the inverse relationship between size of swine farms and local economic growth.

“The results reject the hypothesis that large swine farming contributes to the vitality of local economies,” wrote one of the researchers, agricultural economist Miguel Gómez. “On the contrary, the several models developed here consistently indicate a negative relationship between large swine farms and economic growth in rural communities.”⁵² ○

Solutions from the Countryside **How one township used planning & zoning to protect its unique community**

In the early 1990s, Dodge County’s Ellington Township was faced with a lot of questions about what kind of development would dominate the landscape in the future: The Prairie Island Nuclear Power Plant was considering the area as a possible dumping ground for waste; a medical incinerator was being discussed; and a proposal to build three large hog operations was launched.

So in 1994 residents of the heavily agricultural township took the initiative and began developing a comprehensive planning and zoning ordinance. Over the years, dozens of Minnesota townships have developed similar ordinances, which can govern everything from where gravel pits are located to how far a manure lagoon must be from a neighboring residence. These ordinances are a way for residents to develop planning and zoning that matches their community’s specific geographical and environmental situation while leaving room for future economic development.

In the case of Ellington Township, residents, most of whom are farmers, wanted to leave room for livestock operations to expand, says Linda Noble, who raises hogs and milks cows with her husband Mike in the township. But they also wanted to make sure residents in the area would not be forced to live too close to a facility that could adversely affect their livelihood or quality of life.

The first thing the residents did was to put in place an interim ordinance, which temporarily stopped large-scale development while residents worked out the permanent ordinance. The township hired a consultant and an attorney, both of whom had experience developing land use ordinances. The township board also created a study committee made up of local citizens that spent two years holding meetings, studying reports, reading books and seeking input from within the community about what was

best for the township.

“You have to be comprehensive,” says Mike Noble. “You’re trying to do all the planning for the township long into the future—you’re not trying to stop one hog barn.”

But all of those meetings and hard work paid off. “In the end, I think we came up with a pretty fair ordinance,” says Linda.

The ordinance covers everything from large-scale livestock operations and gravel pits to junk dealers and nuclear waste dumps. The Nobles and other farmers in the township were especially concerned that the ordinance protect the community while giving individual livestock operations a chance to expand. They also wanted to make sure there was enough room between livestock farms to offer farmers biosecurity in the event of a disease outbreak. Specifically, the township passed an ordinance requiring livestock operations that wanted to exceed 1,500 animal units to obtain a conditional use permit from the township.

“If they want to grow past 1,500 animal units they need to get a conditional use permit so it can be discussed in public,” says Linda.

The ordinance also requires minimum setbacks for livestock operations. The bigger the operation, the larger the required setback, with the largest facilities required to be half a mile from neighboring dwellings.

Mike and Linda say the ordinance, which was put in place in 1996, seems to be working well for the township’s residents. It has reduced land use disputes and made it clear what can and cannot be done when putting in a new facility.

“Probably a lot of people in the township didn’t see the foresight of why we needed an ordinance, but now they see why we did it,” says Linda, who is now on the township board. “People come up to me and say, ‘I’m glad you did that ordinance.’”

Sources Cited

- ¹Feedlot Financial Needs Assessment Report. Feb. 1, 2004. Minnesota Department of Agriculture, Agricultural Resources and Management Section, 90 West Plato Boulevard, St. Paul, MN 55107. www.mda.state.mn.us/feedlots/assessment2004.pdf
- ²Feedlots in Minnesota. 2004. Minnesota Pollution Control Agency, 520 Lafayette Road, St. Paul, MN 55155-4194. www.pca.state.mn.us/hot/feedlots.html
- ³Minnesota Agricultural Statistics 2003. Minnesota Department of Agriculture, 90 West Plato Boulevard, St. Paul, MN 55107. www.nass.usda.gov/mn/
- ⁴Minnesota Agricultural Statistics 2003. Minnesota Department of Agriculture, 90 West Plato Boulevard, St. Paul, MN 55107. www.nass.usda.gov/mn/
- ⁵Minnesota Agricultural Statistics 2003. Minnesota Department of Agriculture, 90 West Plato Boulevard, St. Paul, MN 55107. www.nass.usda.gov/mn/
- ⁶Anti-Corporate Farming Laws, the “Goldschmidt Hypothesis” and Rural Community Welfare. 2002. Rick Welsh, Clarkson University, and Thomas A. Lyson, Cornell University. www.i300.org/anti_corp_farming.htm
- ⁷Anti-Corporate Farming Laws in the Heartland. 1997. Community Environmental Legal Defense Fund. www.celfd.org/cdp/cdp13.asp
- ⁸Anti-Corporate Farming Laws in the Heartland. 1997. Community Environmental Legal Defense Fund. www.celfd.org/cdp/cdp13.asp
- ⁹Anti-Corporate Farming Laws in the Heartland. 1997. Community Environmental Legal Defense Fund. www.celfd.org/cdp/cdp13.asp
- ¹⁰Cooperative Farm Bargaining and Price Negotiations: Cooperative Information Report 26. Feb. 1988. USDA Rural Development office, USDA Rural Development, Room 206-W Mail Stop 0107 1400 Independence Avenue SW, Washington, DC 20250-0107 www.rurdev.usda.gov/rbs/pub/cir26/contents.htm
- ¹¹Cooperative Farm Bargaining and Price Negotiations: Cooperative Information Report 26. Feb. 1988. USDA Rural Development office, USDA Rural Development, Room 206-W Mail Stop 0107 1400 Independence Avenue SW, Washington, DC 20250-0107. www.rurdev.usda.gov/rbs/pub/cir26/contents.htm
- ¹²Richard Levins, University of Minnesota Professor Emeritus of Agricultural Economics. Sept. 21, 2004. (telephone interview)
- ¹³Concentration of Agricultural Markets. Feb. 2002. Mary Hendrickson and William Heffernan, University of Missouri. www.agribusinessaccountability.org/page/149/
- ¹⁴Economic Concentration in Agribusiness: Testimony to the United States Senate Committee on Agriculture, Nutrition & Forestry. Jan. 26, 1999. C. Robert Taylor, Auburn University.
- ¹⁵ Changing Structure in the Broiler Industry: The Third Phase of a Thirty Year Longitudinal Study. 2000. William D. Heffernan and David H. Lind. Final report for research project *The Changing Structure of Agriculture in the Southern United States*. Athens, GA: Southern SARE. www.foodcircles.missouri.edu/paper.pdf
- ¹⁶Killing Competition With Captive Supplies: A special report on how meat packers are forcing independent family hog farmers out of the market through exclusive contracts. April 1999. Land Stewardship Project, 2200 4th Street, White Bear Lake, MN 55110. www.landstewardshipproject.org
- ¹⁷Economic Impacts of Contract Hog Production in Missouri: An Alternative Viewpoint. John Ikerd. March-April 1994, Issues in Sustainable Agriculture, Sustainable Agriculture Systems Program, University of Missouri.
- ¹⁸Concentration of Agricultural Markets. Feb. 2002. Mary Hendrickson and William Heffernan, University of

Missouri. www.agribusinessaccountability.org/page/149/

¹⁹Grazing trend changes feed company opportunities. July 17, 1995. Kay C. Jensen, Feedstuffs

²⁰Hoop Structure for Grow-Finish Swine. Feb. 1997. Michael C. Brumm, Jay D. Harmon, Mark Honeyman and James R. Klebenstein. Agricultural Engineers Digest, MidWest Plan Service, Iowa State University, Ames, Iowa

²¹Questions and Answers about PACE: Purchase of Agricultural Conservation Easements. July 24, 2003. American Farmland Trust, 1200 18th Street NW, Washington, D.C. 20036. www.farmland.org/pnw/PACE%20questions.pdf

²²Fact Sheet #2: The Land Protection Toolbox. 1000 Friends of MN
370 Selby Ave. Suite 300, St. Paul, MN 55102. www.1000fom.org/lctools2.htm

²³2003 Metropolitan Agricultural Preserves Status Report. 2004. Metropolitan Council, Mears Park Center, 230 E 5th St., St. Paul, MN 55101. www.metrocouncil.org

²⁴Intensive corn-soybean agriculture not sustainable. August 28 2001. Gyles Randall, University of Minnesota, Southern Research and Outreach Center. www.extension.umn.edu/extensionnews/2001/IntensiveCornSoybeanAgriculture.html

²⁵Crops, Cows & Climate Change: A special report on Midwestern farming's production of greenhouse gases and how agricultural policy can help mitigate the impacts. 2004. Sara Bertelsen, graduate student, University of Minnesota Hubert H. Humphrey Institute. Land Stewardship Project, 2919 42nd St. E., Minneapolis, MN 55406

²⁶Effort aims to bring diversity back into agriculture. March 18, 2004. Janet Kubat Willette, Agri News. <http://webstar.postbulletin.com/agrinews/280053995654763.bsp>

²⁷The Benefits to Minnesota of Citizen-Initiated Environmental Review of Feedlots & the Negative Consequences of Removing that Right. April 22, 2003. Sara Bertelsen, graduate student, University of Minnesota Hubert H. Humphrey Institute. Land Stewardship Project, 2919 42nd St. E., Minneapolis, MN 55406

²⁸Graziers see benefits. Aug. 26, 2004. Agri News, Laura Theobold. <http://webstar.postbulletin.com/agrinews/281551256629313.bsp>

²⁹Impacts of Rotational Grazing and Riparian Buffers on Physiochemical and Biological Characteristics of Southeastern Minnesota, USA, Streams. 2000. L.A. Sovell, B. Vondracek, J. A. Frost and K. G. Mumford. Journal of Environmental Management, 26(6): 629-641

³⁰Same Storm—Different Outcomes. April/May/June 2001. Land Stewardship Letter, Brian DeVore. Land Stewardship Project, 2200 4th Street, White Bear Lake, MN 55110. www.landstewardshipproject.org/lsl/lspv19n2.html

³¹Row crops have 30 to 50 times higher nitrate losses than perennials. Nov. 11, 2000. University of Minnesota Extension Service News, St. Paul, Minn. www.extension.umn.edu/extensionnews/2000/RowCropsCanHave30To50Times.html

³²The Multiple Benefits of Agriculture: An Economic, Environmental & Social Analysis. Nov. 2001. G. Boody and M. Krinke. Land Stewardship Project, 2200 4th Street, White Bear Lake, MN 55110. www.landstewardshipproject.org/programs_mba.html

³³The Multiple Benefits of Agriculture: An Economic, Environmental & Social Analysis. Nov. 2001. G. Boody and M. Krinke. Land Stewardship Project, 2200 4th Street, White Bear Lake, MN 55110. www.landstewardshipproject.org/programs_mba.html

³⁴Checking the food odometer: Comparing food miles for local versus conventional produce sales to Iowa institutions. July 2003. Rich Pirog, and Andrew Benjamin, State University Leopold Center for Sustainable Agriculture, 209 Curtiss Hall, Iowa State University, Ames, Iowa 50011-1050. www.leopold.iastate.edu/pubinfo/papersspeeches/food_travel072103.pdf

³⁵Grain Feeding and the Dissemination of Acid-Resistant Escherichia coli from Cattle. Sept. 11, 1998. Fran-

cisco Diez-Gonzalez, et al. *Science*, Vol. 281, pages 1666-1668

³⁶Organic Livestock Research Survey. January 2004. James A. Riddle, Senior Fellow Endowed Chair in Agricultural Systems, University of Minnesota. www.misa.umn.edu/Other/Livestock-Survey_web.pdf

³⁷FDA labels omega-3 as 'heart healthy.' Sept. 8, 2004. USA Today, Elizabeth Weise. www.usatoday.com/news/health/2004-09-08-omega3-usat_x.htm

³⁸CLA: The Modern Food Chain's Weak Link. 2004. UAES Information Office, Lynnette Harris. Utah State University. <http://extension.usu.edu/files/agpubs/cla.htm>

³⁹Minnesota Institute for Sustainable Agriculture (MISA), University of Minnesota, 411 Borlaug Hall, 1991 Buford Circle, St. Paul, MN 55108-1013. www.misa.umn.edu/

⁴⁰The Alternative Swine Production Systems Program. Wayne Martin, Program Coordinator, 385 Animal Science/Vet Med 1988 Fitch Ave., University of Minnesota, St. Paul, MN 55108. www.misa.umn.edu/programs/altswine/swineprogram.html

⁴¹Finding Food in Farm Country: The Economics of Food & Farming in Southeast Minnesota. 2001. Ken Meter, Crossroads Resource Center, and Jon Rosales, Institute for Social, Economic & Ecological Sustainability, University of Minnesota. www.crcworks.org/ff.pdf

⁴²Minnesota Department of Agriculture Energy and Sustainable Agriculture Program. Minnesota Department of Agriculture, 90 West Plato Boulevard, St. Paul, Minnesota 55107. www.mda.state.mn.us/esap/default.htm

⁴³Adding value at home: Can it add profit to your meat and milk? May-June 2004. Gene Johnston, John Walter and Betsy Freese, Successful Farming. www.agriculture.com

⁴⁴The Farm as Natural Habitat: Reconnecting Food Systems with Ecosystems. 2002. Dana L. Jackson and Laura I. Jackson. Island Press. www.islandpress.org

⁴⁵U.S. and State farm income data. 2004. USDA Economic Research Service 1800 M Street NW Washington, DC 20036-5831. <http://www.ers.usda.gov/Data/FarmIncome/FinFidMu.htm>

⁴⁶U.S. and State farm income data. 2004. USDA Economic Research Service 1800 M Street NW Washington, DC 20036-5831. <http://www.ers.usda.gov/Data/FarmIncome/FinFidMu.htm>

⁴⁷Local intervention and the livestock industry. 2004 (in draft). Sara Bertelsen, graduate student, University of Minnesota Hubert H. Humphrey Institute. Land Stewardship Project, 2919 42nd St. E., Minneapolis, MN 55406

⁴⁸Local intervention and the livestock industry. 2004 (in draft). Sara Bertelsen, graduate student, University of Minnesota Hubert H. Humphrey Institute. Land Stewardship Project, 2919 42nd St. E., Minneapolis, MN 55406

⁴⁹Agribusiness and the rural community. In *As You Sow: Three Studies in the Social Consequence of Agribusiness*. Walter Goldschmidt. Montclair, NJ: Allenheld, Osmun, and Co. (1978). [First published as *Small Business and the Community: A study in Central Valley of California on effects of scale of farm operations*. Report of the Special Committee to Study Problems of American Small Business, United States Senate, December 23, 1946, U.S. Government Printing Office, Washington, D.C., 1946.]

⁵⁰Farm Spending and Local Selling: How Do They March Up? 1994. John W. Chism and Richard A. Levins. *Minnesota Agricultural Economist*, No. 676, University of Minnesota, St. Paul

⁵¹The Impact of Changes in Dairy Farming on a Local Economy: A Case Study. 1995. Patricia Weir Love master's degree thesis, University of Minnesota Department of Applied Economics, St. Paul, Minn.

⁵²Impacts of Concentration in Hog Production on Economic Growth in Rural Illinois: An Econometric Analysis. Miguel I. Gómez, and Liying, Zhang. Presented at the American Agricultural Economics Association annual meeting in Tampa, Florida, July 31 to August 2, 2000

Citizen Task Force on Livestock Farmers & Rural Communities

◆**Land Stewardship Project (LSP)** is a 22-year-old nonprofit membership organization that is striving to put more family farmers on the land producing livestock and crops successfully. LSP's membership base of farmers and consumers works to foster and support sustainable production systems that are good for our land, communities and people. **Web site:** www.landstewardshipproject.org. **Phone:** 507-523-3366.

◆**Minnesota Farmers Union (MFU)** works to protect and enhance the economic interests and quality of life of family members and ranchers and rural communities. Besides representing members at the legislature, MFU is also a leader in education, providing affordable legal service to farmers, helping farmers market their commodities, and helping farmers meet their insurance needs through Farmers Union Insurance. **Web site:** www.mfu.org. **Phone:** 651-639-1223

◆**Minnesota National Farmers Organization** is a nonprofit, maximum-marketing service for its members. Only farmers and ranchers who control their own production can belong. This organization is the Minnesota affiliate of the National Farmers Organization, a nationwide organization of farmers and ranchers created with the purpose of pooling large volumes of grain, livestock and milk. The pooling of these commodities allows the National Farmers Organization to negotiate with processors and buyers for the purposes of procuring a better price for its members. **Phone:** 1-800-657-3290.

◆**Sustainable Farming Association of Minnesota (SFA)** is a non-profit, farmer-based, membership organization with regional Chapters throughout the state. SFA's farmer-to-farmer education and mentoring initiatives guide progress toward a more profitable, environmentally sound and socially responsible farming system. SFA affirms that each farm, farmer and farm family is unique and central to operating a sustainable farm. **Web Site:** www.sfa-mn.org. **Phone:** 320-760-8732.