League of Women Voters of Minnesota Records

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Agriculture Study Committee Members

Gertrude Ulrich
LWV Richfield
7601 Aldrich
Richfield, MN 55423
612/866-8171

Jane Bennett
LWV St. Cloud
4146 Pine Point Rd.
Sartell, MN 56377
320/252-8779
egarver@csbsju.edu

Eunice Biel
RR 1 Box 113
Harmony, MN 55939
507/937-3333
biel.eunice@mayo.edu

Adeline Blowers
LWV Austin
1905 SW 5th Ave.
Austin, 55912-1511
507/437-3547

Anne Borgen
LWV Golden Valley
1811 Pennsylvania Ave N
Golden Valley, MN 55427
612/545-7076
woodhill60@aol.com

Georgianna Campbell
LWV Northfield
10834 Farrel Ave.
Northfield, 55057-4463
507/645-7488

Margaret Egli
LWV ROMAFH
705 Heinel Circle
Roseville, 55113
612/486-0177

Nancy Gundersen
LWV St. Cloud Area
806 S 6th St.
St. Cloud, 56301
320/252-9651

Stephanie Henriksen
LWV Northfield
1866 130th St. E
Dundas, 55019
507/645-7086
e-mail: dkamis@informns.k12.mn.us

Kathy Iverson
LWV Edina
5410 York Ave S
Edina, 55410
612/929-2694

Yleen Joselyn
LWV Crystal/New Hope/E Ply
4068 Hampshire Ave N
Crystal, 55427-1498
612/533-9659
e-mail: 72162.236@compuserve.com

Laurie Jung
LWV Edina
5611 Concord Ave
Edina, 55424
612/922-2120
e-mail: LPJung@aol.com

Brian Karlsson-Barnes
216 Woodley St. W
Northfield, MN 55057
507/645-2527
hgardens@rconnect.com

Janis Larson
LWV Fridley
3812 Lincoln St. NE
Columbia Heights, 55421
612/788-0728

Deanna Lederer
LWV St. Cloud Area
5811 Michael Ct.
St. Cloud, 56303
320/253-5704
e-mail: dlederer@cloudnet.com

Cheryl Lushine
LWV Edina
4600 Browndale Ave
Edina, 55424
612/925-4532

Carol McCarter
LWV BP/O/MG
6211 Eagle Lake Dr
Maple Grove MN 55369
612/564-9383 (FAX)

Connie Metcalf
LWV Fridley
860 W. Moore Lake Dr.
Fridley, 55432
612/571-3596
e-mail: cjmet@netO.net

Beverly Montgomery
LWV MEPH
18321 Ridgewood Rd
Minnetonka, 55345
612/470-1098
e-mail: wmontgomery@ieee.org

Helen Palmer
LWV Minneapolis
2405 Sheridan Ave S
Minneapolis, 55405
612/377-5972
e-mail: thepalmers@uswest.net

Linda Peck
LWV St. Cloud Area
12299 Sauk River Rd
St. Cloud, 56301
320/685-3365

Mary & Eldred Phillips
LWV Owatonna
610 Carl Anna Pl.
Owatonna, MN 55060
507/455-2622

Jeanne & Gordon Prickett
LWV MNMAL
Hc5 Box16cc
Aitkin, 56431
218/927-2267
e-mail: gordnett@emily.net

JoAnne Rohricht
2191 Commonwealth Ave.
St. Paul, MN 55108
651/645-6043
tojoro@worldnet.att.net

Grace Skaar
LWV Freeborn County
Rt. 3 Box 95
Hayward, 56043
507/373-5080

Harold Swanson
210 E Florence
Glenwood, IA 51534
712/527-9895

Barbara Vaile
LWV Northfield
4151 320 St. W
Northfield, MN 55057
507/645-7315
bvaile@nco.northfield.mn.us

Charmaine L. Wright
11513 Karow Tr.
Nerstrand, MN 55053
507/645-8853
aevenson@rconnect.com

Ex officio:

Judy Duffy, President
Sally Sawyer, Executive Director
Andrea Lex, Development & Communications

League of Women Voters of Minnesota
550 Rice Street
St. Paul, MN 55103
651/224-5445
651/290-2145 (F)
lwvmn@mtn.org

MINNESOTA FARMING 2000

A Report of the Agriculture Study Committee of the League of Women Voters of Minnesota

INTRODUCTION: CHANGES IN FARMING

It is a truism to say that farming is changing. Farming has been changing for decades. But it is the accelerating pace and the profound nature of the current changes which have caught the attention of the public.

One indicator of change: The percentage of families earning their living from the soil has dropped steadily since the mid-1930s (LWVUS 8). In Minnesota from 1980 to 1995 the number of farms decreased by 20%, with about 5% of state citizens living on farms in the early 1990s (Minnesota, Corporate Farm Task Force 24; von Sternberg A30). "Currently, Minnesota is losing approximately four farms a day. These are mostly small, family-run farms" (MPCA, *Feedlot*).

This decline in small and medium sized farms has been caused by many factors: droughts, large farm loans, poor harvests, over-abundant harvests, low commodity prices, U.S. grain embargoes, restricted opportunities to market crops, increased production in foreign countries, young people unwilling or unable to enter the business, policies and laws that benefit big producers more than small producers, economic advantages of scale.

Nevertheless, economically, agriculture is still very important to Minnesota. The state is seventh in the nation in income, $8.2 billion, derived from agriculture (Minnesota, Dept. of Agriculture. *Producers' Guide* 3). One-third of rural jobs are directly affected by agriculture, while 22% of all state jobs are in some way involved with it (Minnesota, Dept. of Agriculture. *Agricultural Profile* 1). The present study represents an effort to understand the impact of agricultural policies, regulations and practices on the long term health of agriculture and rural communities.

BACKGROUND

What is a farm?

Family farm. Commercial farm. Small Farm. Corporate farm. Hobby farm. Minnesota farms vary greatly, as does the terminology applied to them.

A land holding is considered a "farm" in Minnesota if it has a gross agricultural income, including government payments, of at least $1,000 (Minnesota, Dept. of Agriculture. *Agricultural Profile* 1). The federal government has for statistical purposes divided farms into three groups: 1) large operations, grossing $250,000 or more per year, 2) medium-sized farms, grossing from $100,000 to $249,999 per year, and 3) hobby farms or small commercial farms, grossing $100,000 or less in farm income (U.S., USDA 29).

The National Commission on Small Farms, in the USDA report *A Time to Act*, categorized all farms with gross receipts under $250,000 per year as "small farms." Under that definition small farms comprise 94% of all farms in the U.S., represent 75% of total productive agricultural assets (mostly in land), and account for 41% of total agricultural earnings (U.S., USDA 28).

The "average" Minnesota farm in 1998 contained 361 acres and grossed $119,420, with a $15,754 net return ("Rural" 4A). This portrait is derived from a large number of very small farms with gross incomes from agriculture of $50,000 or less, a significant number of farms with gross incomes up to $250,000 per year, and a small number of farms with gross incomes of $250,000 or more a year. At present there are 81,000 farms in Minnesota, covering, in 1998, 59% of Minnesota's total land.

In the United States as a whole approximately 6% of farms earn almost 60% of agricultural income (U.S., USDA 28). In Minnesota around one fourth of the largest farms are at present responsible for 80% of the state's agricultural output (Runge).

Who is farming?

As of 1992, 90% of Minnesota farms were held in individual or family sole proprietorships, a very high level of independent ownership (Minnesota, Corporate Farm Task Force 22).

In addition, there are family farm corporations, along with authorized farm corporations and partnerships. Some farmers are forming cooperatives--not for grain elevators or electric power as in previous times, but for making ethanol out of corn, processing soybeans into products, canning local vegetables, or raising hogs.

Hobby farms may be operated by a transplanted urban family living on a farm and growing a garden, caring for horses and chickens, maybe working a small field or two. Other small farms may be operated by farmers who live entirely on the income of their farms. Some of these constitute a segment of the rural poor. They may be old or be young parents (or a single parent). Perhaps they live on a reservation and have substandard land. Almost certainly they do not have a cushion of capital.

Some farmers also work off the farm, sometimes driving many miles back and forth to work because their immediate rural area has few off-farm jobs. Somewhere between 40 to 60% of family income for these farms comes from off-farm employment.

As existing farmers grow older and retire, fewer farms are being passed along to the next generation. (The average age of commercial farmers in Minnesota was 50 in 1998 (Minnesota, Dept. of Agriculture 3)). Some young people, of course, want non-farm careers, but it may be difficult for even young people interested in farming to inherit family operations, despite years of "sweat equity," because of high taxes, high prices for land, or their parents' lack of financial security for retirement.

Making a living

Historically, the average farmer's income has been below that of the average city dweller (LWVUS 11). According to a recent study by the Center for Rural Affairs, for the years 1988-95, in the six Midwest states studied (which included Minnesota), one out of three households in rural counties made less than $15,000 a year. In the same region's cities one of five households had equally low incomes ("Rural Areas"1A). It is not unusual for a farmer to gross $200,000 in farm income, but to be left with $15,000 to $18,000 for the family to live on for the year (Hanners 6A).

There is a saying about farmers: They are the only businesspeople who buy retail and sell wholesale. This may apply to other businesses as well, but it is true that farmers need to purchase many things to conduct business--seeds, fertilizer, machinery, agrochemicals, animal feeds, antibiotics--and these items are expensive. They need to borrow to buy machinery or to put in a crop, and they need to finance buildings for their livestock and their grain storage. Yet when it comes time to sell what they produce, they may have to sell it cheaply. For example, in late 1988, it cost on average $100 to raise a 250-pound pig--a pig that sold for $20. A bumper crop of corn can cause the selling price to fall below production costs.

Farming is a risky business, and always has been. There is always the weather to frustrate farmers. If it is too wet, they can't get into the fields to plant, or they get the crop planted, but then it rots in the ground. If it is too cold, the seeds do not germinate, or after they germinate the plants are killed by frost. If the weather is too dry, the crop does not grow, or it grows poorly, and there is not enough hay for the animals. Hail may come and destroy farmers' crops. Disease may hit, such as the wheat scab of the Red River Valley in recent years. Even floods are a possibility.

These days, too, farmers are competing in a global market, and one in which, for the past few years, there has been a combination of excess supply that pushed commodity prices down, and Asian and Russian financial crises that reduced the market for both grain and meat (Zielenziger 5). In the global marketplace some countries can produce

goods at a lower price than the United States in part because they impose fewer environmental restrictions. Others, like the European Union countries, place restrictions on imports. Wage disparities from country to country are wide, and are affected by currency exchange rates, differences in labor laws, and local cost of living.

Getting bigger

To raise anything at all, of course, farmers need land, long the largest capital expense in agriculture. There have been pressures to get bigger, to own more land, since at least the end of World War II. At that time, when manufacturers no longer needed to produce war machines in great numbers, they turned to peacetime uses for their industrial capacity, including production of large, specialized farm equipment. This equipment became available at the same time as pesticides and herbicides that made it easier to control insects and weeds, and chemical fertilizers that increased yields. Fossil fuel was also cheap, so it could be used to make these chemical products as well as to power farm vehicles.

Farms were thus able to grow larger, amortize the cost of machinery over a larger crop, and still be worked by the same number of people, or even fewer. In some ways this became a cycle: more land required more machinery, and more machinery needed more land to justify its expense.

This push to get bigger continues today, driven in part by the global economy. As some farmers have taken on more and more land and turned increasingly to mechanization and technology to help them handle the work, they have borrowed money to expand. What happened in the early 1980s provides an example of the risks in so doing. From 1975 to 1982, as farmers attempted to modernize their equipment and add land to their holdings, total U.S. farm real-estate debt doubled. Banks encouraged borrowing, and the price of land shot up. By the early 1980's interest payments on debt exceeded net farm income (Ritchie and Ristau 7).

On Oct. 6, 1979, the Federal Reserve raised the cost of borrowing money, attempting to control inflation. This had immense consequences. From 1981-1986, the value of U.S. farmland fell more than 40% in the Midwest and Plains states. In addition, land, which was being used as collateral on the farm loans, was suddenly not worth what it had been a short time before, and farmers found themselves vastly overextended in the eyes of their lending institutions. Despite government bailouts and loan forgiveness, numerous farms failed, as did many small town banks.

Renting land enables some farmers to gain the benefits of size without the burden of debt. Frequently, however, competition for land produces high rents, which can be fixed at the beginning of the season--long before anyone knows what the crops will be like or what price crops will bring. As a recent farm study in southwest Minnesota revealed, rural landlords can make more money than can the farmers to whom they rent (Levins, *Swift* 5).

Coping strategies

Many farmers have taken steps to improve their operations. They have studied agriculture at technical colleges and universities, read farm publications, talked with extension agents, made farm financial plans, purchased a computer, put their records on it, and hooked up to the internet to get the most recent farm information. Perhaps they have an accountant and a lawyer. In many cases both husband and wife are deeply involved in the business of the farm.

Factory farming

Some farmers have turned to economies of scale. Beginning in 1970, when Congress, at the urging of agribusiness and pharmaceutical companies, passed legislation excluding farm animals from the Animal Welfare Act, farmers began raising large numbers of chickens or hogs in a small space. These large animal-confinement operations, or factory farms, put as many as 12,000 pigs or 100,000 egg-laying hens together in a single building under controlled conditions (Adcock 1-5).

Industrialized animal agriculture began with chickens and spread to cattle, which no longer went from pasture to slaughter, but were shipped to distant feedlots where they were fenced together by the tens of thousands, feeding intensively in preparation for slaughter. In Minnesota the decade of the 90's saw rapid growth in large animal feedlots, particularly swine facilities. From 1964 to 1997, the number of swine in Minnesota increased from 3.4

million to 5.5 million, while the number of farms decreased from 55,000 to 10, 800 (Minnesota. Office of the Legislative Auditor).

Such practices have yielded a uniform product at low costs for the consumer while maximizing efficiency, productivity and profits for corporate agriculture. The intense confinement of animals, however, is considered by its critics to be both cruel and unhealthy for the animals. Moreover, human health may also be endangered by factory farming practices: Industrial-style farms increase the risk of water pollution, and may yield noxious if not toxic air in their vicinity.

Sustainable farming

Some farmers have turned in another direction. They have attempted to earn at least a partial living with sustainable agricultural techniques--techniques that do not require massive amounts of fertilizer, insecticides, and herbicides, techniques that can result in up to 35 times less soil erosion and contamination runoff from pasture land. Such practices also reduce the use of petroleum and single-purpose machinery.

Sustainable farms generally are diverse operations, with a variety of crops and animals. In a sense, sustainable farmers have gone back to the best of agricultural practices from the first half of the 20th century and continued to add to that knowledge with new techniques, growing perennial forages and grasses, diversifying and rotating crops.

They are raising free-range chickens, small numbers of hogs (perhaps 50) living outdoors, and moderate numbers of dairy cows (maybe 50-60) that are allowed out to pasture when the milking is done. Hoop housing (a special method of housing hogs that involves outdoor shelters and plenty of straw), controlled pasture grazing, and other such "natural" methods are used by these farmers.

It has been established that sustainable operations can be efficient and productive. In recent years, the problem has been finding a profitable market for these operations, because they tend to be small, whereas traditional buyers generally want to buy from large producers. However, there are niches for sustainable farmers, such as organic products, and animals raised for antibiotic- and hormone-free meat. As consumer demand for these products has increased, for some farmers sustainable methods have proved profitable.

Contract farming

Yet another means of coping with the changing nature of farming has been for farmers to enter into contracts with large companies, contracts in which the farmers agree to grow the companies' chickens or hogs, or to sell fruits, vegetables, and grains to them. It is estimated that nationally about 90% of the chicken industry is under contract, 65-70% of the hogs, about 40% of the fruits and vegetables, and approximately l0% of the grains ("Contracts" 11). Dairy cow operations are not under contract yet, but Gene Hugoson, Minnesota Commissioner of Agriculture, believes a lock-in price will also become common for them in the future (Nistler 18).

The majority of the contracts, called marketing contracts, specify simply that farmers deliver a certain quantity and quality of produce to the buyer on a certain date for a specified price or specified price range, depending on quality. If farmers lock in a price that assures a fair profit and an amount that they can deliver, such contracts can be helpful, giving farmers some assurance of the price they will receive for what they produce. Also having a contract may help farmers borrow money from the bank to produce their crops.

If, however, they have a poor harvest and cannot deliver as much as they have contracted for, they may have to purchase whatever is contracted for from others to satisfy the agreement, perhaps at a significantly higher price than they are going to be paid.

Under another legal agreement, the production contract, farmers raise animals or fowl for a big company. The farmers finance and construct new buildings to the company's specifications, raise livestock by the company's methods, feed and vaccinate by the company's plan (perhaps using the company's feed and medications). Then at a specified time, the chickens, turkeys or hogs are delivered to the buyer for the price in the contract. Sometimes producers are paid a bonus if the quality is particularly high. The buyer does all weighing and grading.

Dick Gladly, chief economist and vice president of public affairs for ConAgra, a large agribusiness based in Omaha, Nebraska, cites the potential advantages of contracts for his company. With production contracts, his company can control the type of animals they are getting, making for a uniform product (lean breeds of hogs, for example), and they know that on any given day they will have enough supply to keep their large packing plants going. They also know how much they will have to pay the farmers and can more easily make the financial calculations necessary to running a successful business (Nixon 12).

For the farmer, a production contract means--for the duration of that contract--an assured buyer and price for the livestock he raises. But it also means dependence on continuing contracts to help pay off loans for building the necessary chicken or hog barns and the risk that the company will withdraw from an area whenever it is a good business decision to do so. In 1997, for example, the Campbell Soup Company closed its chicken processing plant in Worthington, leaving 36 area contractors with half-paid-for barns and no chickens to raise (De Vore-10). A final disadvantage is that under most production contracts the farmers have no rights to question the companies' assessment of quality. There is no governmental oversight.

Rural communities

Both Minnesota policy and public opinion value rural communities and their way of life. The emphasis on preserving family farms is partly historical, stemming from the belief that a nation of small landowners is a healthy society, where families can feed themselves, sell some of their produce to others, and live a good life. The early colonists came from Europe, where large landowners controlled the means of production, and where nearly everyone else was a serf, artisan, small shopkeeper, or household help. Early political leaders saw this idea of wide land ownership as a means of promoting democracy.

Yet many rural communities are going through very hard times. For one thing, out-migration is increasing, an effect evident in the 1980s, when non-metropolitan counties lost an average of 11% of their population; among 18-34 year-olds, the loss was 17% (Amato 39-40). Businesses have been abandoned or moved elsewhere; schools have closed or consolidated. Though some counties showed a little growth in the 90s, the projections are for continued decline in counties outside the Twin Cities suburban area (Minnesota, Minnesota Planning). It will take some major changes for many rural communities to become good places to live again.

One group less likely to leave the small town is the retirement-age population. Although some older people choose to move to warmer climates or more urban locales, many do not. From 1980 to 1990, this population grew 18 percent in rural areas and only 15 percent in metro areas. It is projected that this group will continue to grow faster in the rural areas than in the metropolitan areas, with a concomitant need for services such as transportation, health care, senior housing, social services, and long-term care. Yet the tax base to provide them is decreasing (Minnesota, Minnesota Planning).

Most rural counties' gross income used to come largely from agricultural sources; today, however, agriculture provides only a small percentage of county income. A study in Swift County provides one example: In 1975 farmers and farm employees earned 30 percent of the total personal income for the county. In 1995 it was 1.63%. (Levins, "Swift" 3). The picture is similar for many counties. Even in good years much of the money farmers receive leaves the county to pay seed companies, landlords, equipment dealers, and chemical companies beyond the borders of the county. As farms become larger, this trend is exacerbated. In 1991 University of Minnesota economists John Chism and Richard Levins found that the percentage of money spent within a twenty-mile radius of the farm declined dramatically with an increase in the size of the operation (Chism 2-3).

Additionally, as large corporations take over the food industry, farmers and middlemen see the disappearance of agricultural institutions: livestock auction barns shut down, local grain elevators closed, local slaughter plants empty. Creameries leave, while small vegetable factories shut their doors. Much of the local market that farmers once depended on vanishes, leaving only a few customers for the farmers' products.

Economist John Ikerd says that "on balance, industrialized livestock operations destroy more jobs than they create. Different studies report estimates of from 1 1/2 to 3 jobs lost for every job created" (Ikerd 4). New industries wishing to come into the rural area--industries like large industrialized farms, food-processing plants, or slaughter houses--are, unfortunately, likely to offer jobs at low wages under poor working conditions. These businesses,

desiring numerous low-paid workers, may recruit immigrant workers, who now constitute 10 to 20 percent of the population in some counties. Over 20 languages, for example, are spoken in Pelican Rapids, a community of 1,800 (League of Women Voters of Minnesota 41).

The influx of these immigrant groups into low-paying jobs, combined with the increasing proportion of older citizens, increases the need for educational and social services at the same time as fewer businesses and residents are left to pay for them. In addition, the communities must continue to provide clean water, good roads, and proper garbage and sewage disposal.

The Internet may also have the ability to drain dollars away from local business. Almost anything can be purchased there, even farm products such as animal feed, fertilizers, chemicals, and seeds. On the other hand, technology could be an answer to the problems of rural communities. People could live in country areas and, through the Internet, do their business, take their college courses, and communicate with others. The rural villages could become as global as the largest urban center.

Agriculture and the environment

Agriculture can provide benefits to the environment such as enhanced soil and water quality, green corridors for rivers, habitat for wildlife, and beautiful landscapes. But while many farmers are good environmental stewards, others employ practices which cause, for example, contamination of water and erosion of the soil; in the past many filled in wetlands, a practice which we now understand can have harmful consequences for the entire environment.

The rapid increase in industrial agriculture in Minnesota has focused attention on the relation between farming and the environment, particularly agriculture's effect on water and air. In 1998, as a result, the Minnesota legislature created a task force to prepare a Generic Environmental Impact Statement on Animal Agriculture (final report expected in 2001). A background report on water prepared for this task force provides this assessment:

> In Minnesota, about 60% of the surveyed or monitored rivers and streams, and 17% of the surveyed or monitored lakes were classified as being impaired. Agriculture was identified as the cause of 90% of the impaired river miles, and 64% of the impaired lake areas. It is unknown to what degree various types of agricultural activities . . . caused the impairment. In the Minnesota River basin, it is estimated that from 50-100% of the assessed tributary river miles . . . do not adequately support aquatic life. . . . (University G/5)

The environmental effects of Minnesota agriculture go well beyond our state's borders. Nutrients from farm run-off--from the monoculture farming of corn and soybeans and from animal waste--are linked to the formation of an approximately 7,000 square mile "dead zone" in the Gulf of Mexico, an area of low oxygen where aquatic organisms cannot survive. According to the U.S. Geological survey, 1.7 million tons of nitrogen are flushed down the Mississippi into the Gulf each year, 6-8% coming from Minnesota (Meersman 18).

The increase in factory farms has enormous implications for both water and air quality because it means large concentrations of manure. According to the Minnesota Pollution Control Agency, Minnesota's estimated 45,000 feedlots produce animal wastes that exceed the amount of human waste produced by a population of over 40 million people (MPCA, *General*).

Manure is a valuable resource when applied to the land appropriately. But it can become an environmental poison when it is not carefully controlled. Because manure from large feedlot operations is typically held in lagoons (basins), which can stretch the length of one or more football fields, the surrounding environment is at risk. Lagoons may leach, rupture, overflow. A worker may fail to close a valve properly. Or the lagoon itself may be poorly constructed. There may be illegal dumping of manure. Finally, there are natural occurrences, such as floods or underground sinkholes. A recent study by Iowa State University found that more than one-third of the lagoons studied leaked beyond the amount allowed by state standards (Clean Water Network 12).

It is common management practice to remove liquid manure from a lagoon and spray it onto fields as fertilizer. However, according to a report prepared by the University of Minnesota, "if manure is over-applied, applied at the

wrong time in the growth cycle, applied unevenly, allowed to experience losses in storage, handling, and application, then it can degrade water and/or air quality" (University J/6). Putting manure on the land where it cannot be absorbed causes runoff, which creates an extensive and unregulated source of water pollution.

The percentage of contaminated wells in Minnesota affected by animal agriculture is unknown, although it is known that roughly 7% of drinking water wells in Minnesota exceed the Maximum Contaminant Level set by the EPA for nitrates in drinking water (University G/ 7). Minnesota Pollution Control reports that feedlot runoff contains roughly ten times as much phosphorus as untreated domestic waste, and that only one pound of phosphorus produces over 500 pounds of weeds and algae in a lake, which depletes the water of oxygen and suffocates fish and other aquatic life. Manure poses additional problems, as it also carries bacteria, viruses, heavy metals, and other harmful pollutants.

In Minnesota, animal waste remains one of the most prevalent causes of fish kills. In June 1997, 100,000 gallons of raw manure from a hog operation in Renville County spilled into a nearby creek, killing nearly 605,000 fish (Minnesota. Dept. of Natural Resources). (The farmer whose facilities and/or procedures failed was punished by jail and a fine. The company for which he was growing the hogs, one of the nation's largest pork producers, was deemed to have no legal responsibility for the accident (De Vore 9)). Manure or feedlot pollution was responsible for ten of the 12 agriculture-related fish kills from 1995 through 1998, and led to more fish kills than either industrial or municipal pollution (Minnesota. Dept. of Natural Resources).

Agriculture's effect on air quality depends to a great extent on the area and concentration of manure. The noxious odor from large concentrations of manure is well described in the following account of a corporate hog operation in Oklahoma:

> It's the ever present stench--the overpowering smell from Seaboard's 40,000 hogs closely confined in 44 metal buildings, where exhaust fans continuously pump out tons of pungent ammonia, mixed with tons of grain dust and fecal matter, scented with the noxious odor of hydrogen sulfide... (Barlett, 58).

Air emissions from feedlots also can be dangerous to health--of the animals, workers, and rural neighbors. Recently the Minnesota Department of Health linked the results of air monitoring for hydrogen sulfide at a Minnesota farm to physiological symptoms, and concluded that the monitored levels were high enough to pose a potential threat to human health (Minnesota, Dept. of Health). Twenty to 30 percent of workers in large-scale swine facilities are known to have respiratory problems (Thu 12). Exposure to high ammonia concentrations can be fatal to humans. In 1997 a link was established between waste from poultry farms in Maryland and Virginia and outbreaks of *Pfiesteria piscicida*, a toxic microbe that kills fish and causes skin irritation, short-term memory loss, and other cognitive problems for humans exposed to it. In 1993 a pathogen, crystosporidium, in Milwaukee's water made 400,000 people sick and led to the deaths of more than 100 people. The suspected source: dairy manure (Duskin 14). (See also *Danger on Tap,* and Satchell, "The Cell from Hell.")

Airborne contaminants from animal agriculture, including gases, odor, dust, microbes, and insects, may be produced or emitted inside and near animal production facilities and can also drift when waste products are applied on the land. The environmental and health effects of these airborne contaminants are only beginning to be investigated. Long-term impacts on ecological systems and people are not known (University H/1).

Agriculture and food

Pesticides, antibiotics, growth hormones, and food-borne pathogens

We spend about 11% of our income for food at present, an amount significantly lower than in any other part of the industrialized world. Japan spends approximately 18%, Australia, 14.6%, and France about 15% (Minnesota Farm Bureau 1). But along with this productive efficiency come some potential risks to human health. These stem from pesticides getting into food and water, from the use of antibiotics in livestock, from administration of growth hormones to livestock, from the risk of food-borne pathogens, and perhaps from genetically modified organisms.

Ten years ago, the League of Women Voters of the United States published a Citizens Guide entitled *America's Growing Dilemma: Pesticides in Food and Water.* That study pointed out the fragmented authority of federal regulatory agencies, and questioned the effectiveness of their processes for setting tolerances, assessing risks, and enforcing regulations. To a great extent these concerns remain.

Approximately 40% of all antibiotics used in the U.S. are used in livestock. Most are used in sub-therapeutic doses to promote rapid growth. The remainder are used to prevent or treat diseases, which can spread rapidly among crowded and stressed animals.

The Institute of Medicine of the National Academy of Sciences began to question this practice in 1989. Evidence has mounted throughout the nineties that the routine use of antibiotics in livestock may diminish the drugs' power to cure infections in people, as resistant bacteria are passed on from the meat of animals to people who eat it. Health authorities, including the World Health Organization, the U.S. Centers for Disease Control and Prevention, and the National Academy of Sciences have called for banning sub-therapeutic uses of certain antibiotics with animals, as European countries have already done. The U. S. Food and Drug Administration has now begun a major revision of its guidelines regarding the use in this country of antibiotics for animals.

A further safety concern in industrialized animal agriculture is the administering of growth hormones, because long-term exposure to high residues of natural and synthetic hormones in meat products may pose risk of breast and reproductive cancers in humans (Gabler 38). Finally, food-borne pathogens transmitted from animals to humans--salmonella in poultry, eggs and meat; *campylobacter* in chicken; *E.coli* in hamburger; and *listeria* in meat and dairy products--all can result from the cramped confinement and feed contamination associated with factory farming.

Genetically modified organisms

The use in agriculture of genetically engineered, or genetically modified (GM), organisms has stirred much debate. In genetic engineering, small fragments of genetic material are transferred from one (usually unrelated) organism to another for the purpose of adding a new trait to the recipient organism. The resulting organism is called "transgenic."

All crops are in fact genetically different from their wild predecessors, through long periods of natural selection, domestication, and controlled breeding (Transgenic). Genetic engineering differs, however, from conventional plant breeding (hybridization and crop selection) in several ways: 1) there is genetic exchange between organisms that would not occur in nature; 2) the genetic engineering process introduces other foreign material (bacteria and viruses necessary to ensure successful transfer); 3) genetically engineered plants can be developed more rapidly and with more precision than in traditional breeding programs.

GM crops were first grown commercially in the mid-1990s. By 1999, almost 100 million acres world wide had been planted, the largest acreages being in the U.S., Argentina and Canada. In the United States in 1998 65% of cotton, 57% of soybeans, and 38% of corn were GM crops, followed by canola and potatoes. The U.S. and/or Canada also grow GM flax, squash, papaya and tomatoes. GM crops currently in the field-testing stage include alfalfa, apples, cucumbers, melons, rice, strawberries, sunflowers, walnuts and wheat. In Minnesota, test crops include corn, soybeans, canola, potatoes, sugar beets, wheat (Barrett 2-3).

Most GM crops have been developed for agronomic (ease of growing) purposes: about two-thirds for tolerance to herbicides such as Roundup and one-third for insect and virus resistance (Barrett 2-3). A small number of crops have been modified for quality traits such as altered oil production in canola or delayed ripening in tomatoes. Crops containing vaccines and vitamin supplements are in the wings. For example, rice is being genetically modified to include beta carotene, a precursor of Vitamin A; such "golden rice" may help millions in developing countries whose diets are based on rice and are now deficient in Vitamin A (a major cause of blindness in children (Transgenic).

Those with doubts about genetically modified crops urge caution and more long-term study, particularly carefully controlled field study. They note that the evidence of benefits--increased yields, decreased use of chemicals, increased farmer profits--is inconclusive. USDA data from 1996-98 showed positive results in some cases and negative results in others (Barrett 2-3). Opponents also fear health problems--particularly allergic reactions--

resulting from unwittingly encountering an allergen in a GM food. A project to enhance the protein in soybeans with a protein gene from brazil nuts was stopped when testing showed that people allergic to brazil nuts also reacted to the altered soybeans (Transgenic). And, opponents say, GM foods may be addressing the wrong problem. The real problem today, according to Catherine Bertini, Executive Director of the U. N. World Food Program, is not a crisis of food supply, it is a crisis of poverty, inequality and lack of access (International).

Of greater concern are potential environmental effects. Once new genes are released into the environment, there is no way to take them back. Gene transfer through pollen from GM crops to related weeds has occurred from, for example, GM canola to wild mustard, and from GM wheat to jointed goatgrass (Transgenic). Environmental scientists and farmers have identified additional concerns including eventual insect resistance; possible harm to non-target insects such as ladybugs and monarch butterfly larvae; harm to beneficial soil organisms; and the development of new plant pathogens.

Organic farmers, among others, worry about genetic engineering's use of *bacillus thuringiensis (*Bt). Bt is a self-limiting, organically approved, non-chemical alternative for insect control. Used only as necessary, Bt spray has been a very important resource of last resort for organic farmers. Through GM technology, Bt genes are now being inserted in crops such as corn, cotton and potatoes, transferring the insecticidal trait into every cell of the plant and at much higher levels than the spray. Future plans include many other crops. Such heavy use of Bt is likely to accelerate resistance in insects, thereby causing a loss of major proportion to organic farmers. Organic farmers stand to lose as well through accidental cross-pollination. Farmers who grow and market non-GM corn and soybeans lose their market when contamination from neighboring GM crops occurs.

Finally, GM technology gives rise to food security concerns among some people, in that almost all GM crops are owned by private sector corporations. Patents on GM technologies by seed and chemical companies have placed the control of crop production into very few hands. Recent corporation mergers have combined seed, chemical, processing, and pharmaceutical companies into powerful entities.

The proponents of genetic modification make a number of arguments. Foremost is that transgenic crops have the potential to feed the world without requiring additional land (such as rain forests) to be opened up to agriculture. Currently developed GM crops, they point out, are good for the environment, in that they use a lower level of pesticides and herbicides; transgenic crops under development will increase the productivity of degraded soils. Farmers can use a variety of planting strategies to mitigate potential negative effects like cross-pollination and reduction of milkweed on which monarch larvae feed. The public has been eating transgenic soy and corn products for some time and as yet no adverse health effects have been reported (Transgenic). Finally, proponents point out that the U.S. competitive position in the world as a major exporter of food products and as a leader in the biotech industry will be enhanced.

Agribusiness

In the U.S. the food business, like virtually every other industry from finance and media to computers and auto making, is increasingly dominated by a limited number of large companies. William D. Heffernan and his colleagues at the University of Missouri keep track of these concentrations. As of January 1999, four major businesses controlled 79% of the U.S. beef slaughter: IBP, ConAgra, Cargill, National Beef (16). Seventy-five percent of pork slaughter is controlled by six businesses: Smithfield, IBP, ConAgra, Cargill, Farmland, and Hormel (16). In flour milling, there are four big producers: ADM Milling Company, ConAgra, Cargill Food Flour Milling, and Cereal Food Processors, Inc. (17). (In each case the companies have been named from largest to smallest.)

Big companies also own elevators, which buy farmers' crops. Cargill is first, followed by ADM, Continental Grain, and then Bunge. According to Heffernan, four firms control processing of at least 40% of all the major commodities produced in the Midwest (2). There is concern, therefore, that not only do these companies have vast segments of individual markets under their control--produce the most chickens, slaughter the most beef cows, mill the most flour--but they also are powerful in many areas, not just one or two. They own seed corn, produce fertilizer, have interests in pharmaceutical companies, prepare food products.

These companies also aid their farm customers through marketing and risk management programs, research into techniques for greatest profitability, and development of specialty grain markets. And they earn large profits for

their shareholders and private owners. According to Heffernan, the food sector is second only to the pharmaceutical sector in producing returns on investments (U.S., USDA 72). Richard Levins, an agricultural economist, comments that it is common for these large companies to earn 17-20% on their equity (their net worth) each year. In comparison, farmers during the l990s earned 2.39% on their investment of land, machinery, livestock, etc. (Food 9).

Nevertheless, one might ask whether this field of giants is good for U. S. consumers. Heffernan says that if four or fewer firms control 40% or more of a sector of a market, healthy competition is no longer present (1). This concentration has certainly happened in agriculture, as it has in many other economic sectors, even though over the years the U.S. has enacted various laws that are designed to allow healthy competition in the marketplace; two of these most often called upon in agricultural matters are the Packers and Stockyards Act and the Sherman Anti-trust Act. Critics of the increasing concentration in our food system charge that these laws are being ignored at both federal and state levels.

Getting big is one thing that helps a company survive in the midst of other giants; mergers and acquisitions have become a familiar feature of contemporary life. The small, independent corner grocery store is almost gone, as is the independent hardware store. Kraft Foods is now a unit of Philip Morris. Such large companies require modern transportation, communication, record keeping, and accumulation of capital. They also need a global market to make a large company possible and profitable.

Mid-size farmers need global markets as well. Since this state is blessed with fertile soil and favorable climate along with skilled farmers, Minnesota produces much more than its citizens consume, and in fact today exports one-third of the wheat, one-third of the corn, and half of the soybeans grown in the state. The growing economies and populations of, particularly, Asia seem attractive markets for the these products. (Currently, in order of size, our five largest markets are Japan, Canada, Mexico, Taiwan, and Korea.) Minnesota food and agricultural exports total $12 billion (28% of our total agricultural production) and support more than 44,000 jobs (Minnesota, Dept. of Agriculture. *Agricultural Profile;* Schommer).

The global marketplace, however, can be challenging. While there are new markets to reach with a product, the competition may be intense, not only from other U.S. corporations, but also from corporations in Brazil, Argentina, France, Mexico. Risks are equally dramatic. Markets that once were good can quickly and unexpectedly dry up. A whole group of economies can go into a slump, as happened in Asia in the 90s; other countries can not only improve their ability to meet their own needs, but increase their exports, as Brazil is doing with soybeans (Zielenziger 5). The U.S. government can embargo a product for political reasons, as it did with wheat sales to Russia. Sales are also influenced by the trade barriers that still exist in the world market. Size can provide the necessary flexibility and capital to weather such sudden changes; where size does not avail, government may need to step in.

THE ROLE OF GOVERNMENT IN AGRICULTURE

Because a country's people must have food, and because farming is so risky a business, modern nations have paid particular attention to their agriculture and have taken steps to insure that it would survive. In the U.S. there have been direct payments to farmers, public research in agriculture at the land-grant universities, extension service help for individual farmers and their families, construction of roads and waterways to move food, special insurance programs for farmers, and other programs.

Besides ensuring that the United States has had enough food and Minnesota has retained its healthy agricultural economy, there have been additional goals. One has been to preserve medium-sized family farms, as indicated by the preamble to the Corporate Farm Law, enacted in 1851 by the Territory of Minnesota and revised frequently over the years: "to encourage and protect the family farm as a basic economic unit, to insure it as the most socially desirable mode of agricultural production, and to enhance and promote the stability and well-being of rural society in Minnesota and the nuclear family." This preamble is retained in the current version of the law.

In addition, the U.S. and, to a lesser degree, Minnesota have been willing to subsidize agriculture because of the importance of producing great volumes to sell abroad. A sufficient number of farmers producing bumper crops has led to low prices, allowing the U.S. to be competitive in the global marketplace. Foreign sales have been good for

the U.S. as well as for farmers, who have earned 30-40% of their income in recent years from exports (Strauss 2B). Of course Minnesota, being a major agricultural state, has wanted its share of this trading prosperity.

Federal government assistance: a brief history

While weather, new technology, and market conditions are always important to farming, the federal government has also significantly influenced agriculture's fate since the depression of the 1930's. The 1933 Agricultural Adjustment Act, enacted during President Franklin Roosevelt's administration, was intended to assist farmers only during the difficult Depression period. But federal assistance has continued to this day, assistance that has always been controversial and almost always expensive.

The goals of this legislation were to increase farm income, ensure a stable and cheap national food supply, and conserve farmland. Non-recourse government loans--loans that allowed farmers to turn these crops over to the federal government if the market price was lower than the loan rate--were introduced on a limited number of crops (among them corn, wheat, rice, and cotton), providing in effect a national floor below which prices would not fall. The federal government thus acquired, stored, and eventually distributed (often to food shelves and school lunch programs) large supplies of some commodities. Control requirements--limits on what individual farmers could grow under the program--were also enacted.

This federal help was welcome relief to farmers, enabling many to remain in farming. Ironically, though, since government help was based on acreages and production, much of the aid went to the largest and most successful farmers, who were then able to buy new machinery, purchase neighbors' land, and become even more productive and more wealthy. Another effect (which continues today) was that farmers were in this way encouraged to continue growing what was subsidized, not necessarily what the market needed.

Republicans, as a group, were from the beginning extremely unhappy with Roosevelt's farm program, believing that market forces ought to be allowed to work in agriculture just as in other businesses and that the nation ought not to be supporting farmers at the expense of the taxpayers. After World War II, when Republicans gained control of the presidency under President Dwight Eisenhower (1953-61), his secretary of agriculture, Ezra Taft Benson, retired some programs and initiated policies to encourage farmers to increase production for a world market. The government loan rate for farmers (which created the floor for domestic farm prices) was dramatically lowered, and getting bigger was encouraged. Much of the farm support program, however, was left intact.

National policy continued to encourage increased production all through the 1970s and '80s, promoting international sales, which were particularly good for the U.S. balance of payments. U.S. agriculture products enjoyed strong demand abroad during these years, partly caused by a weak dollar. Earl Butz, secretary of agriculture during the Nixon administration, advised farmers to "get big or get out." Farm income, land prices, and farm debt all escalated. Inflation ran rampant.

At the same time (1970's), Congress created a two-tier farm program, which still had a non-recourse loan program (but rates were low). In addition, Congress set a target price for specific crops and paid farmers deficiency payments (direct income supplements) when the market was below target price. Finally, in 1985 President Ronald Reagan signed a bill that basically kept the old system, although it sharply lowered the federal loan rate, and at the same time increased deficiency payments to farmers. This kept agricultural products inexpensive for the export market and the consumer. The cost to taxpayers soared, reaching $26 billion in 1986 (LWVUSEF 5).

The following year, 1986, the Tax Reform Bill became law. Previously, non-farmers had acquired agricultural land with large incomes as a tax shelter. Tax reform repealed or reduced the tax advantages, thereby freeing up agricultural land for purchase by farmers.

The most recent major farm legislation constituted a dramatic change. Called the Freedom to Farm Act, it went into effect in 1996, eliminating federal commodity subsidies and production quotas. It called for continued payments to farmers for seven years, which would allow them to adjust to free markets. But in 1997 an economic crisis shook Asia, and it could no longer import agricultural products, such as U.S. pork, as it had in previous years. In August

1998 Russia devalued its *ruble*, and could no longer afford U. S. grain. In addition to all of this, much of the U.S. had abundant crops in 1998, the surplus leading to depressed prices. Some farmers chose to store their grain, hoping for better markets later. Hog prices hit record lows.

In response to all of this pain, Congress approved, and President Bill Clinton signed, a special $6 billion farm relief bill, plus $1 billion in agricultural tax cuts. In total, the federal government paid farmers and owners of farmland about $12.1 billion in 1998. Unfortunately, 1999 proved to be another hard year. This time Brazil devalued its *real,* making grain purchases by that country unlikely; the Asian and Russian markets were still down; the harvests were again abundant; and prices again low. Hogs, once a reliable source of income, remained rock bottom, due in good measure to overproduction resulting from factory farming operations

The harvest of 1999 was generally a good one in the Midwest, so there was no shortage of food for sale. In addition, numerous farmers were still holding grain from the year before, and a continuing large volume of hogs was ready for market. Consequently prices were very low. Again the federal government came to farmers' aid with nearly $9 billion in additional payments, for a total of $22.7 billion in farm aid, 40% of farmers' net cash income for the year (Hershey). (In the spring of 1999, the Minnesota legislature also approved $70 million in farm relief.)

State policy and programs

Minnesota agricultural policy is largely determined by five groups. First, there is the legislature, primarily through the House and Senate Agriculture and Rural Development committees. In the executive branch are two agencies, the Minnesota Pollution Control Agency and the Department of Agriculture. Both have regulatory powers; the Department of Agriculture, however, is charged with both regulating and promoting agriculture. The University of Minnesota College of Agricultural, Food and Environmental Sciences, as well as the Minnesota Extension Service, influence the direction of policy through research and education. Finally, farm organizations like the Farm Bureau and the Farmers Union, as well as agribusiness groups such as Minnesota Pork Producers and the Minnesota Agri-Growth Council develop policy proposals and lobby the legislature.

The Minnesota Department of Agriculture and the University of Minnesota are strong proponents of biotechnology in agriculture and affirm its existing and potential benefits to the state's economy. According to Agriculture Commissioner Gene Hugoson, "A lot of what we're doing as a state government is trying to assure and reassure an often skeptical, uneducated and not-necessarily-wanting-to-be-informed public that biotechnology is safe" (*Star Tribune*). And according to Dean Charles Muscoplat of the University of Minnesota College of Agriculture, Food and Environmental Science, Minnesota should increase its public investment in food-related biotechnology to prepare for the intensity of global competition and for its role in feeding the world.

Minnesota also has a variety of programs to provide instruction and assistance for farmers. The Department's Organic Certification Cost-Share Program assists with costs of certifying crops as "organic." The Energy and Sustainable Agriculture Program, under the Minnesota Department of Agriculture, publishes a *Greenbook* each year to assist farmers in using sustainable agricultural techniques. It sponsors forums, information exchanges, and other educational programs, and offers grants for trials of innovative methods. Some farmers and interested others believe that this program, the only section of the Department of Agriculture specifically designed for smaller, environmentally conscious farmers, is significantly underfunded.

The state also helps with certain marketing efforts. One program that Agriculture Commissioner Hugoson promotes is designed to help specialty farmers with marketing. The state will certify that farm products are what the farmers say they are--in terms of fertilizer restrictions, medicines in feed, insecticides, and so forth. A noteworthy, but small, program is "Minnesota Grown." It was begun in the mid-1980's in order to promote buying Minnesota products and to help farmers sell their products directly to the consumer. A *"Minnesota Grown" Directory for Fresh Produce* lists approximately 150 growers. Currently there are 600 licensed users of the "Minnesota Grown" logo.

The Minnesota Department of Agriculture has recently reinstated state inspection of small slaughter and processing facilities, which allows meat producers to sell their own meat directly to customers if they use one of the facilities

inspected by the state. This program now includes 28 plants, processing in total nearly 300,000 pounds of meat a month. Previously meat for any kind of sale had to go through a USDA-inspected large operation, and large operations do not do small orders.

Regulation of agriculture

Minnesota farm laws

For 150 years lawmakers in Minnesota have been making laws about farmland and farming. Seven years before Minnesota became a state, a statute was adopted that said, "Any alien may acquire and hold lands...and he may convey, mortgage, and devise the same...as if such alien were a native citizen of this territory or of the United States" (Minnesota. Corporate. Appendix D). Between then and 1991 the legislature dealt with land ownership over 100 times (Rankin 1).

The reason Minnesota has such a large percentage of family farms is precisely because the Minnesota legislature has passed laws to control ownership. To keep foreign money from coming in to buy up Minnesota farmland the Alien Ownership Law was enacted in 1973; in 1977 and 1981 restrictions were tightened. The Corporate Farm Law was amended in 1973 to limit corporate leasing of land; it was amended again in 1975 to require that a majority of shareholders in an authorized farm corporation live on the farm or be actively engaged in farming. Ten years later, an amendment to the law was passed that set maximum acreage limits--generally 1500 acres of farmland (Rankin 3-4).

The law has been loosened in various ways as well. In 1978, poultry raising was defined to be a non-farm activity, which meant that the law did not apply to corporations in the poultry business (Rankin 5). Another amendment passed in 1994 broadened the law to allow non-family corporations, composed mainly of farmers, to raise hogs in Minnesota.

The present Corporate Farm Law allows two major categories of agricultural corporations--family and authorized--but places strict restrictions on them. Family farm corporations must be established for the purpose of farming, the majority of shareholders must be persons or the spouses of persons related to each other within the third degree of kindred (third cousins, for example), and at least one shareholder must live on the farm or at least be actively operating the farm.

The authorized farm corporation has broader requirements, but here too local investment and farmer dominance is required. Within this category are two different options. One option allows no more than five shareholders (all of whom must be "natural persons"), requires that 51% of the shareholders must reside on farmland or be actively engaged in agriculture, and prohibits the corporation from owning more than 1,500 acres of land. The other option, enacted in 1994 in response to farmers who wished to pool assets and raise large numbers of hogs, applies only to those raising livestock other than dairy cattle. There can be any number of shareholders, but at least 51% of shares must be held by those living on the farm or actively engaged in farming, 75% of the financial control must be held by Minnesota farmers, and the corporation can own no more than 1,500 acres of agricultural land.

A third category under the Corporate Farm Law is the breeding stock exemption, where farmers raise animals for breeding, not for meat. Finally, a limited number of corporate ownerships of land either were grandfathered in by the 1973 legislation or have been granted for very special uses since. Poultry raising does not fall under this law, so corporate ownership is allowed there.

Limited liability companies are now allowed in Minnesota agriculture under legislation passed during the 2000 session. Limited liability means what it says: Investors are not liable for company damages in an amount greater than that which the investor has invested. Two types of companies, a family farm limited liability company and an authorized farm limited liability company, were written into the law. In both cases 49% of the investors can be either non-family (family limited liability company) or non-farmer (in the authorized farm limited liability company) (Sobociaski 10). This law makes it easier to raise investor money for large-scale animal operations, where the potential for a costly environmental accident is always present.

The 2000 session of the legislature passed a bill regulating contracts between agricultural producers and buyers. Modeled after the procedure used with the insurance industry in Minnesota, it set minimum standards: The contracts must tell the farmers what risks they run, and be clearly written. Farmers must have up to three days to review contracts, see attorneys, and change their mind. It is now illegal to require a farmer to keep secret the price received under a contract. A court could later change the terms of the contract if it was not clear and readable and the producer was harmed. A Minnesota Department of Agriculture publication, *A Producer's Guide to Production Contracts*, has recently become available.

Environmental regulation

Congress has largely turned to the states to regulate industrial agriculture, although pollution does not respect state lines, and only a national solution can prevent "pollution shopping"--the attempt by businesses to locate in states with more lenient regulations. What federal legislation exists, like the Clean Water Act and the Clean Air Act, is often inadequate with respect to agriculture. The Clean Water Act, for example, does not adequately address non-point source pollution (polluted runoff whose sources are diffuse and do not come from a pipe or other conduit), of which agriculture is the biggest contributor. Federal (and state) environmental regulations fail to prevent factory farms from locating in environmentally sensitive areas, such as floodplains and karst areas. The U.S. Clean Air Act has not been effectively used to regulate factory farm air pollution. There is currently no national tracking system for manure spills, fish kills (those often go unreported, so the causes remain unknown), or *pfiesteria* events associated with confined-animal feeding operations ("Spilling Swill" 3).

It often seems that taxpayer dollars are used to first subsidize industrialized farms and then to clean up after them. (See, for example, Adcock.) Many citizens advocate making corporations responsible for the pollution they are causing, and are calling for a reclassification of big farms from agricultural to industrial.

Legislation was proposed in Minnesota in 1998 that would have prevented the construction or expansion of large animal operations for a two-year period so that the issues involved could be studied. It was, however, defeated. The legislature chose instead to charge the Environmental Quality Board with preparing a Generic Environmental Impact Statement on animal agriculture to be completed in 2001. A task force has been working on the project since 1998.

Some states have taken action. For example, there is now a moratorium on building new corporate hog farms in North Carolina. Other states have limited or banned new factory farms. In Minnesota there has been intense controversy over large animal feedlot operations, as well as heavy criticism of the regulatory body, the Minnesota Pollution Control Agency. (See, for example, Minnesota Office of the Legislative Auditor report.) Some Minnesota counties are taking things into their own hands, adopting moratoria on new factory farm construction and developing and enforcing regulations.

Regulation of genetically modified foods

Three federal agencies review different components of genetically modified organisms (GMO). The Department of Agriculture (USDA) regulates potential plant pests and the safety of plants; the Environmental Protection Agency (EPA) regulates GM microorganisms and pesticides; and the Food and Drug Administration (FDA) regulates the safety of GMOs intended for human and animal food.

The USDA requires breeders to conduct field tests for several years to assure the accuracy of the result and the nutritional level and safety of the plant. In 1992 the FDA established the policy that GM foods did not require regulation and labeling unless they contained substances with a "significantly different" structure, function or quantity than substances in non-GM foods. This position is supported by The National Academy of Sciences, and the Food and Agricultural Organization of the United Nations (Schmickle). The FDA has determined to date that most transgenic crops are not "significantly different" and therefore do not require pre-market testing or approval. Until very recently developers of GM foods were encouraged to consult with the agency on safety and regulatory questions on a voluntary basis. That policy has now been changed to require companies to give advance notice and submit safety data before bringing new foods to market.

The Science and Environmental Health Network and the Institute for Agriculture and Trade Policy, on the other hand, believe that the principles used by U.S. regulatory agencies are inadequate to evaluate potential hazards. They say this for a number of reasons. First, they believe the United States' fragmented regulatory system is itself inadequate to deal with the complexity of genetically modified organisms. This fragmentation also makes public awareness and participation difficult. Moreover, in the U.S. the developer of the product, who will benefit financially from its sale, does pre-market testing. The full results of these tests are treated as confidential business information, and thus are not available to the public. No independent testing is done to verify the results (Barrett).

The State of Minnesota, through its Department of Agriculture, has its own review process for proposed GM crop test sites. That process mirrors the federal permitting and review process. The USDA sends all pertinent information regarding a proposed test crop to the state, where it is reviewed from the perspective of the state's interest. Then public notice is given, providing citizens an opportunity to comment. Modifications may be requested if the proposal does not meet the criteria established. The state must also approve any commercial use of GM products, such as the sale of seeds.

The one risk in GM foods that most seem to agree on is that such foods could contain unsuspected allergens. The National Academy of Sciences report, for example, advocates better methods for identifying things that could trigger allergic reactions in some people (Schmickle). One method of accomplishing this might be simply to label all GM foods as "genetically modified."

A coalition of 60 consumer and environmental groups, along with at least 49 members of Congress, has called for such labeling (*Organic* 1). Advocates of labeling believe it is in keeping with U.S. case law and precedent on the people's "right to know" about what they eat (Midwest). Labeling would bring the U.S. in step with Europe, Switzerland, Japan, Korea, Australia, and New Zealand, where such labeling is mandatory.

The food industry, however, says that labeling would be burdensome and might arouse irrational fears in consumers. Moreover, because of the virtual omnipresence of GM plants and by-products, almost everything would have to be labeled. An alternative might be to label foods that do not use GM technology, as we do now with organic foods.

ISSUES

Government cannot do anything about hail or drought; the global economy is not especially controllable; industrialized farming is here to stay. Consumers in the United States have, for the most part, inexpensive food, wide choices, and few shortages. Many farmers are hurting. Others have specialty markets, good contracts, little or no debt, vast fields, a skill at locking in prices on the grain exchanges for their traditional crops, good luck, and government payments when they need them.

But it is not hard to see that certain aspects of the current agriculture scene pose serious questions. The big one is this: To what extent should the state make special efforts to keep medium-sized commercial farms viable, those farms that are trying to make farming their main source of income, but that do not have the volume of sales to make a decent profit in times of low prices and low profit margins for the major crops and animals?

Do we say that Minnesota should not be trying to save the family farm, that we in the United States believe in the free market system, and part of that belief is that everyone should have an opportunity to make a living, but no one warrants special protection? Do we agree that large businesses dominate most areas of our economy and argue that there is no good reason why farming should be rescued from this global trend?

Or do we believe that the production of food is fundamentally different from other businesses and therefore should be treated differently? Do we agree that medium-sized, commercial farms are a valuable part of Minnesota's economy and society, that such farms are good for the environment, good for the countryside, good for small towns, people and animals--and should therefore be assisted to remain in business? Should the state find ways to encourage young people to become owner-operators of family farms?

If small and medium-sized farms are going to be assisted, what form should such assistance take? Here are some possibilities. Add to the educational workshops, grants, loans, technical advisors, and publications currently available through the University of Minnesota, the Minnesota Department of Agriculture to assist farmers to improve their methods of farming. Find new crops to grow and markets for these crops, as was done in the 1960s with soybeans. Vigorously promote cooperative processing ventures to enable farmers and/or rural communities to add value to crops before sending them on. Mandate that state institutions--colleges, state government dining areas, hospitals and prisons--use state-grown vegetables and fruits whenever possible. Promote "Minnesota grown" to grocery stores and restaurants.

Should the state be assisting rural communities? Is farming the only or best means of support for rural communities? The Ventura administration is strongly advocating good computer access in the rural areas, believing this to be vital if businesses and professionals are going to the enticed to the country. Roads, affordable housing, good schools, state-of-the-art health care also help sell the rural community. Government has programs in these areas. Does more need to be done?

Clearly, another big issue is the environment. Should farms be required to treat their animal wastes in the same fashion as cities must treat human waste before it goes back to the environment? Should farmers going into large-scale animal raising (or the businesses that contract with them) have to purchase a bond, so if there is an accident and significant damage occurs, someone other than the state (the taxpayer) is responsible for fixing the problem? Should there be air and water standards that factory farms must meet in order to stay in business?

Should the government assist the small but growing number of farmers who maintain sustainable agricultural practices such as rotational grazing, cover crops, crop rotation? Should government provide economic incentives to use sustainable techniques?

We know that farms also improve the environment. For example, one study shows that small U.S. farmers allow 17% of their areas to be woodlands (compared to 5% on large farms) and maintain twice as much of their land in soil improvement uses, such as cover crops and green manures (Rosset 8). Should small farms therefore be favored in government policies? Should we provide incentives--such as Reinvest in Minnesota (RIM), which protects natural and sensitive areas on both public and private land by permanent easements that prevent set-aside wild areas from reverting to agriculture--to set aside more land than at present?

Some consumers are concerned about food safety and apprehensive both about the chemicals used to grow fruits and vegetables and the genetically modified foods that have started to arrive on the market. Should Minnesota do more to promote organically grown foods? Should Minnesota mandate appropriate labeling of foods so that the consumers know what they are purchasing? Is this an action that could be effective on a state level?

An increasing number of agriculture research grants come from agribusiness, which naturally leans towards projects that are commercially viable for large corporations. Does agribusiness unduly influence agricultural research? Should the state fund more research that is helpful for small and medium-sized farms and that is focused on sustainable agriculture?

The global marketplace raises other issues. Could the state promote Minnesota exports even more than it does now? Is there anything the state can do to cushion the effects on farmers of swift changes in the global economy?

Finally, what, if anything, can and should Minnesota do about the large corporations that are dominating markets? Should we push for stronger enforcement of federal anti-trust and fair marketing legislation, which the Minnesota attorney general could do? Is the state level the right place for such action?

The answers to these questions will direct public agricultural policy in Minnesota. Citizens need to understand the issues and make their preferences known.

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Speakers

Agricultural Committee

Willis Anthony, Farmer, St. Peter MN; former Professor in Applied Economics, University of Minnesota

Brad Biers, staff member, Agriculture Policy Committee, Minnesota House of Representatives

Cornelia Butler Flora, Senior Fellow in Agricultural Systems, University of Minnesota

Gene Hugoson, Minnesota Commissioner of Agriculture

Richard Levins, Department of Applied Economics, University of Minnesota

William Nelson, Director of Cooperative Development, Cenex Harvest States

John Peck, Doctoral Candidate in Agricultural Economics, University of Wisconsin

Mark Ritchie, Institute for Agriculture and Trade Policy

C. Ford Runge, Professor of Economics and Law, University of Minnesota

Dave Serfling, Farmer, Preston MN; member, Land Stewardship Project

Harold Swanson, Farmer and Professor of Agriculture, Iowa Western, Council Bluffs, Iowa

Linda Thrane, Departmental Vice President, Cargill

Members of League of Women Voters of Minnesota Agriculture Study Committee

Jane Bennett, LWV St. Cloud Area

Eunice Biel, Harmony, Minnesota

Adeline Blowers, LWV Austin Area

Anne Borgen*, LWV Golden Valley

Georgianna Campbell, LWV Northfield

Brian Karlsson-Barnes, LWV Northfield

Nancy Gundersen*, LWV St. Cloud Area

Stephanie Henricksen*, LWV Northfield

Janice Larson, LWV Fridley

Deanna Lederer*, LWV St. Cloud Area

Carol McCarter, LWV Brooklyn Park/Osseo/Maple Grove

Connie Metcalf, LWV Fridley

Beverly Montgomery, LWV MEPH

Helen Palmer*, LWV Minneapolis

Linda Peck, LWV St. Cloud Area

Eldred Phillips, LWV Owatonna

Mary Phillips, LWV Owatonna

JoAnne Rohricht*, LWV St. Paul

Gertrude Ulrich, LWV Richfield, Chair

Barbara Vaile*, LWV Northfield

Charmaine Wright, Nerstrand

Judy Duffy, President, LWVMN
Sally Sawyer, Executive Director, LWVMN

Writers/Editors
Nancy Gundersen, LWV St. Cloud
Mary Steen, LWVMN Board, *VOTER* Editor

*Readers, advisors, editing assistance

This list reflects the membership of the Committee over an eighteen month period. We hope that we have acknowledged all of the people who made contributions to this study.

League of Women Voters of Minnesota
550 Rice Street
St. Paul, MN 55103
651/224-5445

DISCUSSION GUIDE
LWVMN STUDY 1999-2001: Minnesota Farming 2000

Contacts: Gertrude Ulrich, Study Chair, 612/866-8171
Helen Palmer, Committee Member, 612/377-5972
LWVMN Office, 651/224-5445, 1-800-663-9328, lwvmn@mtn.org

PURPOSE OF THE STUDY

The purpose of this study, adopted by delegates to the 1999 LWVMN Convention, is to help educate Minnesotans on state agricultural policy and its impact on farming and rural communities. The publication *Minnesota Farming 2000* was based on a variety of readings and meetings and interviews with numerous experts on agricultural policy and rural issues. Members are encouraged to consult other resources in preparation for this meeting.

PURPOSE OF THE MEETING

The purpose of the meeting is to provide an opportunity for League members to inform themselves on the issues and to come to a consensus of opinion on a state League position on the questions included in this packet.

BACKGROUND

The League of Women Voters of Minnesota held a series of workshops around the state in the fall of 1999 and provided suggestions and information for community forums. The Agriculture Study Committee (see page 20 of *Minnesota Farming 2000* for a list of committee members) heard from many speakers representing a variety of viewpoints during 1999-2000. Committee members wrote *Minnesota Farming 2000* over the summer. Local Leagues were sent a copy in late October. Local Leagues will hold their consensus meetings over the winter. Consensus reports are due from local Leagues by **March 1, 2001.**

RESOURCE MATERIALS AND SUGGESTED READING

Minnesota Farming 2000, October 2000. (Available on our lwvmn website)
"Significant Dates for the Business of Agriculture," October, 1999, LWVMN Study Committee
Harvest of Risk, St. Paul Pioneer Press Reprint. Dec. 1999. (Mailed to local Leagues, September, 2000)
LWVUS Statement of Position on Federal Agriculture Policy, 1988

Agriculture Study Consensus Questions Report Form, enclosed

Works Cited, page 17, *Minnesota Farming 2000.* Provides a wide variety of sources.

U.S. Farm Policy: Who Benefits? Who Pays? Who Decides? League of Women Voters of the United States, 1988. (Provides good background, but not essential)

Goldschmidt, Walter. *As You Sow: Three Studies on the Social Consequences of Agribusiness.* 1947. This is a seminal work on the topic.

"Transgenic Crops: An Introduction and Resource Guide." http://www.colostate.edu/programs/lifesciences/TransgenicCrops

AT THE MEETING

Appoint a timekeeper/recorder to help you keep on track and to record member responses to consensus questions.

I. Introduction (5 minutes)

Remind members of the purpose of the study and how League positions are formed by the consensus process.

Arriving at "consensus" means determining the sense of the group and its agreement with a general philosophy or position. The consensus report form asks you if your League has come to consensus for each question asked. The form also asks you to indicate the numbers of people voting "yes" or "no."

The State League will assess a number of factors in considering whether a position has been reached. Among those factors is the relative strength of support or opposition to a position—2/3 support or opposition is considered a bare minimum for reaching consensus. Other factors the State League will consider in determining whether consensus has been reached include geographic distribution, sizes, types and number of local Leagues participating in the process.

If your League has had an earlier meeting on this topic you may want to review and summarize your discussion.

II. Summarize topics discussed in *Minnesota Farming 2000.* (45 minutes)
Review other readings/resources of interest.
Review 1988 LWVUS agriculture position. Note that some LWVMN and LWVUS environmental positions are also relevant and allow us to take action. (See *Impact on Issues* and *Program for Action for 1999-2001.*)

III. Review consensus questions in their entirety before responding in order to have a full understanding of the topics addressed. (15 minutes)

IV. Making the choice. (55 minutes)
(Note that page references from *Minnesota Farming 2000* are provided to assist you.)
Respond to each question with the number of those voting for each option. Be sure to note comments and discussion as well.

Return the consensus report form to the LWVMN office, 550 Rice Street, St. Paul, MN 55103 no later than March 1, 2001.

Significant Dates for the Business of Agriculture

1921	Packers and Stockyards Act (federal act that restricts unfair and uncompetitive packer practices)
1933	Agricultural Adjustment Act (federal depression legislation that intends temporarily to help farmers)
1940's	Federal farm support programs enacted (with production restrictions)
1970's	Increased pressure on farmers to produce more for an international market
	Large producers take over chicken industry
	Escalation in farm income, land prices, and farm debt
	China, India, Brazil start growing more of their own grain
1973	Minnesota enacts the Minnesota Corporation Farm Law and the Alien Ownership Law
1975-1982	Total U.S. farm real-estate debt doubles
1981-1986	Value of U.S. farmland falls more than 40% in 10 midwestern and plains states
	Numerous farms fail, as do many small town banks
1990	Approximately 5% of Minnesotans live on farms
1994	For first time, less than 2 million farms exist in U.S.
1995	Commodity prices hit record highs; milk prices high; U.S. farm exports rapidly expanding; hog prices good
1996	Federal Freedom to Farm enacted; eliminates federal commodity subsidies and production quotas; will be payments to farmers for a number of years to allow them to adjust; dairy compacts allowed
1997	Almost 1/3 of all crops and livestock produced in this year are contracted (generally, a contract between farmer and buyer that crop will be purchased at an agreed-upon price)
1997	Economic crises in Asia
1998	Russia devalues its ruble (8-98)
	Good dairy prices in MN
	Record crops and depressed prices
	Hog prices hit record lows
	Congress approves a $6 billion farm relief bill plus $1 billion in agricultural tax cuts
1999	Brazil devalues its real
	MN legislature approves $70 million farm relief bill (spring)

LWVUS STATEMENT OF POSITION ON FEDERAL AGRICULTURE POLICY

Position in Brief:
Promote adequate supplies of food and fiber at reasonable prices, and support economically viable farms, environmentally sound farm practices and increased reliance on the free market.

Statement of Position on Federal Agriculture Policy as announced by National Board, October 1988:

The LWVUS believes that federal agriculture policies should promote adequate supplies of food and fiber at reasonable prices to consumers, farms that are economically viable, farm practices that are environmentally sound and increased reliance on the free market to determine prices.

Sustainable Agriculture: Federal policy should encourage a system of sustainable, regenerative agricultural production that moves toward an environmentally sound agricultural sector. This includes promoting stewardship to preserve and protect the country's human and natural agricultural resources.

Research and Development: Agricultural research, development and technical assistance should continue to be a major federal function. Resources should be targeted to developing sustainable agricultural practices and to addressing the needs of mid-size farms.

Agricultural Prices: The LWVUS supports an increasing reliance on the free market to determine the price of agricultural commodities and the production decisions of farmers, in preference to traditional price support mechanisms.

Agriculture and Trade: U.S. efforts should be directed towards expanding export markets for our agricultural products while minimizing negative effects on developing nations' economies. Consistent with the League's trade position, multilateral trade negotiations should be used to reduce other countries' barriers and/or subsidies protecting their agricultural products.

Farm Credit: Farmers should have access to credit with reasonable terms and conditions. Federally provided farm credit is essential to maintaining the viability of farm operations when the private sector is unable or unwilling to provide the credit farmers need.

Of these policies, the League believes the most essential for the future of agriculture are: encouraging sustainable agriculture; providing research, information and technical assistance to agricultural producers; and increasing reliance on the free market to determine prices.

as approved by 11/8/00 LWVMN Bd meeting

The League of Women Voters
A Voice For Citizens, A Force For Change
550 RICE STREET, SUITE 201 ST. PAUL, MN 55103

**** Please return to the LWVMN office at the address listed at the left by MARCH 1, 2001.***

Name of League: _____
Number of Members Participating: _____
Contact Name and Phone Number/E-Mail: _____
_____

AGRICULTURE CONSENSUS STUDY QUESTIONS

The LWVMN Convention of 1999 adopted a study of the impact of agricultural policies, regulations and practices on the sustainability of agriculture (and rural communities). ("and rural communities" was added by the committee).

Please read all questions first before marking your responses. Consensus generally means the "sense of the group." **Please record the number of people responding to each question, as well as their comments**. The committee will consider all responses in deciding if consensus has been reached.

1. One of the goals of state agricultural policy in the Minnesota Corporate Farm Law preamble is to establish the family farm as the most socially desirable mode of agricultural production, contributing to the stability of rural communities. Is this statement one with which you **[pp. 10, 13]**:

   Agree_____ Disagree_____ No Consensus____

Comments:

2. Should the state of Minnesota provide the following:

   a. support for all sizes of farms **[p. 4]** Yes____ No____ No Consensus____

   b. research directed to moderate-sized farm operations **[pp. 4, 10, 12]**
   Yes____ No____ No Consensus____

   c. support for beginning farmers **[p. 2]** Yes____ No____ No Consensus____

   d. support of innovative practices and crops for moderate-sized farms **[p. 4]**
   Yes____ No____ No Consensus____

   e. crisis supports based on need **[p. 11]** Yes____ No____ No Consensus____

Comments:

3. In relation to industrialized agriculture and consolidation of the industry, the state should:

   a. favor agribusiness through governmental policy **[p. 9, 12]**
   Yes____ No____ No Consensus____

   b. ensure access to markets for all producers **[p. 9, 12]**
   Yes____ No____ No Consensus____

   c. restrict size and ownership of limited liability corporate farms
   Yes____ No____ No Consensus____

   d. monitor contracts **[pp. 4, 14]** Yes____ No____ No Consensus____

Comments:

4. Should Minnesota's agricultural policy include the following:

a. incentives for sustainable farming practices **[p. 4]** Yes___ No____ No Consensus__

b. incentives for contributions to clean water and air, healthy soil and conservation of wildlife **[p. 6]** Yes___ No____ No Consensus__

c. incentives for the preservation of agricultural land Yes___ No____ No Consensus__

d. shared liability for environmental damage (caused by agriculture) between farmers and businesses under contract **[pp. 7, 13]** Yes___ No____ No Consensus__

e. stricter standards for animal confinement operations **[pp. 3. 6. 14]** Yes___ No____ No Consensus__

f. promotion of exports **[pp. 2, 9, 10, 12]** Yes___ No____ No Consensus__

g. research into genetically modified foods **[p. 15]** Yes___ No____ No Consensus__

h. support for niche market and value-added products (i.e. ice cream from milk) **[p. 12]** Yes___ No____ No Consensus__

i. promotion of cooperatives **[p. 9]** Yes___ No____ No Consensus__

j. affordable food products for all Yes___ No____ No Consensus__

Comments:

5. Should the state of Minnesota support the following for rural communities **[pp. 5-6]**:

   a. infrastructure (including internet access) Yes____ No____ No Consensus___

   b. education (including educational development to meet needs)
   Yes____ No____ No Consensus___

   c. liveable wages for workers Yes____ No____ No Consensus___

   d. crisis assistance Yes____ No____ No Consensus___

   e. development of leadership skills Yes____ No____ No Consensus___

   f. community and regional planning Yes____ No____ No Consensus___

   g networking with farmers and community leaders
   Yes____ No____ No Consensus___

   h research into viable and sustainable rural communities
   Yes____ No____ No Consensus___

Comments:

LWVMN Position on Agriculture March 2001

The LWVMN believes that the state should encourage a system of sustainable agricultural production which provides safe, healthful food and which preserves and protects the state's human and natural agricultural resources and enhances the environment. State policy should support research and technical assistance in farming practices and rural economies that improve the economic viability of family farms, environmental health, and the quality of life of family farmers and their communities.

The LWVMN holds that the family farm *(see Note, p. 2)* is the most socially desirable mode of agricultural production, and contributes to the stability of rural communities. The LWVMN views family farmers as those most likely to practice stewardship of the land in order to preserve it for future generations, participate in the economy and social life of their communities, and ensure diversity on the land.

The LWVMN believes that state of Minnesota should support family-owned, moderate- and small-sized farms. Specifically, the LWVMN believes that the state should promote

-research directed to moderate- and small-sized farm operations
-support for beginning farmers
-innovative practices and crops for moderate- and small-sized farms
-farmer-controlled cooperatives which serve moderate- and small-sized farms

Further, the state of Minnesota should

-ensure access to markets for all producers
-provide crisis supports based on need (*"crisis" understood to be an event beyond the farmer's control such as a natural disaster)*
-monitor contracts for the protection of farmers
-ensure that corporate farms be held liable for their share of losses, environmental damage, public health hazards, etc.

In the interest of preserving and enhancing the environment, the LWVMN strongly favors a state agricultural policy which includes

-incentives for sustainable farming practices
-incentives for contributions to clean water and air, healthy soil and conservation of wildlife
-incentives for the preservation of agricultural land
-shared liability for environmental damage (caused by agriculture) between farmers and businesses under contract

Because of concerns for both animal and human health as well as ethical issues relating to the treatment of animals, the LWVMN believes the state should promote stricter standards for animal confinement operations.

The LWVMN believes that in order to promote the stability of rural communities, the state of Minnesota should support

- community and regional planning
- education (retraining, farm management, marketing, etc.)
- infrastructure
- liveable wages for workers
- crisis assistance
- development of leadership skills
- networking with farmers and community leaders
- research into viable and sustainable rural communities.

Exports should be promoted as long as this does not hold priority over promotion of a local/regional food system.

The LWVMN supports research into genetically modified foods if the purpose of such research is to ensure the long-term safety of GMO food and crops, to advance basic research knowledge, to benefit sustainable agricultural practices, and to serve the public good.

NOTE on terms used:

Family farm generally implies that the family owns and lives on the land, provides most of the labor, assumes the economic risk, and makes management decisions.

According to the Minnesota Institute for Sustainable Agriculture, sustainable agriculture seeks to balance three long-term goals:

quality of life (to satisfy personal, family, and community needs for health, safety, food, and happiness);
environment (to enhance finite soil, water, air, and other resources);
economics (to be profitable).

In any given situation, the most sustainable choice is the one where the net effects come closest to meeting all three goals.

The League of Women Voters of Minnesota Agriculture Study
Consensus Report
March 2001

Introduction

The League of Women Voters of Minnesota believes that the state should encourage a system of sustainable agricultural production which provides safe, healthful food and which preserves and protects the state's human and natural agricultural resources and enhances the environment.

State policy should support research and technical assistance in farming practices and rural economies that improve the economic viability, environmental health, and quality of life of family farmers and their communities.

Consensus Results

1a. One of the goals of state agricultural policy in the MN Corporate Farm Law preamble is to establish the family farm as the most socially desirable mode of agricultural production, contributing to the stability of rural communities. Is this statement one with which you agree, disagree or have no consensus?

Consensus Vote Results: The LWVMN by an 84% vote agrees that the family farm is the most socially desirable mode of agricultural production, contributing to the stability of rural communities.

Participants thought there were a number of complex issues underlying this question. There was concern, for example, about the impact of industrialization and globalization in agriculture on the economic viability of family farms. These concerns notwithstanding, this vote reflects the view that family farmers are most likely to practice stewardship of the land in order to preserve it for future generations, and are most likely to participate in the economy and social life of their communities. And such farms are most likely to ensure diversity on the land which is highly valued. It is these values, rather than nostalgia, that warrant the support of family farms.

2a. Should the state of Minnesota provide support for all sizes of farms?

Consensus Vote Results: The LWVMN by a 72% vote <u>opposes</u> state support for <u>all</u> sizes of farms; however support for family owned, moderate and small farms is affirmed.

Specifically, as consistently stated in the comments, state support of corporate farms and of very large operations is not favored. (Although all of Park Rapids' votes were "yes" on this question and most of St. Cloud's, their comments clearly stated that they did not favor state support for large farms at the expense of moderate sized and smaller farms.

The existing consensus would, therefore, be stronger yet had their votes reflected their comments.)

2b. Should the state of Minnesota support research directed to moderate-sized farm operations?

Consensus Vote Results: The LWVMN by an 87% vote agrees that the state should direct research to moderate-sized farm operations (consistent with national position).

There were further suggestions that smaller farms also be included.

2c. Should the state of Minnesota provide support for beginning farmers?

Consensus Vote Results: The LWVMN by an 86% vote agrees that the state of MN should provide support for beginning farmers.

Comments from Leagues suggest examples such as education (both classes and on-site), technical assistance, loans, tax benefits, mentoring, and generally removing barriers to beginning farmers.

2d. Should the state of Minnesota provide support for innovative practices and crops for moderate-sized farms?

Consensus Vote Results: The LWVMN by a 93% vote favors state support for innovative practices and crops for moderate-sized farms.

2e. Should the state of Minnesota provide crisis supports based on need?

Consensus Vote Results: The LWVMN by a 75% vote agree that the state should provide crisis supports based on need.

Comments from Leagues indicate that this vote was based on the understanding that "crisis" refers to an event beyond the farmer's control such as a natural disaster (flood, drought, etc.).

3a. In relation to industrialized agriculture and consolidation of the industry, the state should favor agribusiness through government policy.

Consensus Vote Results: The LWVMN by a 77% vote opposes the state's favoring of agribusiness through governmental policy.

not reflected in POSIT

3b. In relation to industrialized agriculture and consolidation of the industry, the state should ensure access to markets for all producers.

Consensus Vote Results: The LWVMN by an 83% vote agrees that the state should ensure access to markets for all producers.

Comments suggest that Leagues care particularly that small and mid-sized farms have fair access to markets.

3c. In relation to industrialized agriculture and consolidation of the industry, the state should restrict size and ownership of limited liability corporate farms.

Consensus Vote Results: The LWVMN by a 75% vote agrees that the state should restrict size and ownership of limited liability corporate farms.

This question encompasses both the issue of liability and of size/ownership restriction. In regard to liability, comments indicated a particular concern that corporate farms should be liable for their share of losses, environmental damage, public health hazards, etc. In regard to size/ownership restriction, there was no consistent view expressed. Several comments admitted to confusion and lack of understanding about the law; others indicated opposition to the concept of limited liability corporate farms and to the Limited Liability Corporations Law itself.

3d. In relation to industrialized agriculture and consolidation of the industry, the state should monitor contracts.

Consensus Vote Results: The LWVMN by an 84% vote agrees that the state should monitor contracts.

Comments indicate a general sense that contracts should be monitored for the protection of farmers.

4a. Should Minnesota's agricultural policy include incentives for sustainable farming practices?

Consensus Vote Results: Yes by a 98% vote.

4b. Should Minnesota's agricultural policy include incentives for contributions to clean water and air, healthy soil and conservation of wildlife?

Consensus Vote Results: Yes by a 99% vote.

4c. Should Minnesota's agricultural policy include incentives for the preservation of agricultural land?

Consensus Vote Results: Yes by a 97% vote.

4d. Should Minnesota's agricultural policy include shared liability for environmental damage (caused by agriculture) between farmers and businesses under contract?

Consensus Vote Results: Yes by a 90% vote.

4e. Should Minnesota's agricultural policy include stricter standards for animal confinement operations?

Consensus Vote Results: The LWVMN by a 91% vote believes that Minnesota's agricultural policy should include stricter standards for animal confinement operations.

Some comments expressed concern for animal cruelty and exploitation. Others objected to practices which may impact human health such as sub-therapeutic anti-biotics, growth hormones, intensive feeding, and cramped conditions in animal confinement.

4f. Should Minnesota's agriculture policy include the promotion of exports?

Consensus Vote Results: ***The LWVMN by a 92% vote favors the promotion of exports conditionally, i.e., based upon the following principles:***

- ***That promotion of exports should not hold priority over promotion of a local/regional food system.***
- ***That U.S. exports should not destabilize the economy and food security of other nations (consistent with national League policy statement).***

In addition, there is a significant concern regarding the high energy costs (fossil fuels) of the long-distance transport of food.

4g. Should Minnesota's agriculture policy include research into genetically modified foods?

Consensus Vote Results: The MNLWV by a 91% vote supports research into genetically modified foods for the following purposes:

- **to ensure the long-term safety of GMO food and crops for people, animals and the environment**
- **to advance basic research knowledge (rather than commercial gain)**
- **to benefit sustainable agricultural practices**
- **to serve the public good.**

Comments suggest the need for caution; the need to understand the long-term effects of GM foods; and a concern that there be basic rules, guidelines and an ethical framework for such research.

4h. Should Minnesota's agricultural policy include support for niche market and value-added products (i.e., ice cream from milk)?

Consensus Vote Results: The LWVMN by a 79% vote agrees that the state should support niche market and value-added products.

The study committee passed a motion to drop this question from the report. The committee is persuaded that the terms "niche markets" and "value-added" products are misleading and, therefore, a consensus on this question would not be useful.

4i. Should Minnesota's agricultural policy support promotion of cooperatives?

Consensus Vote Results: The MNLWV by an 87% vote agrees that the state should promote cooperatives; however members differentiate between farmer-controlled cooperatives (which serve small and mid-sized farms) and those which function like big corporations. Member comments clearly support the former, not the latter.

4j. Should Minnesota's agricultural policy include affordable food products for all?

Consensus Vote Results: The MNLWV did not sufficiently support (65% and thus no consensus) an agricultural policy which would include affordable food products for all. Rather, there was strong support in the comments for the price of food reflecting its true costs (eg to the environment) and for farmers being paid fairly for what they produce. Many felt the question to be inappropriate in that it did not permit these issues to be addressed.

5a-h. Should the state of Minnesota support the following for rural communities?

Consensus Vote Results:

a. **infrastructure (85%)**
b. **education (89%)**
c. **livable wages for workers (82%)**
d. **crisis assistance (79%)**
e. **development of leadership skills (79%)**
f. **community and regional planning (90%)**
g. **networking with farmers and community leaders (85%)**
h. **research into viable and sustainable rural communities (90%)**

Education is seen to include programs in retraining, marketing, conflict resolution and continuing Extension outreach. Several comments point out the need for livable wages for farm workers. Members are particularly in favor of (f) community and regional planning, including a viable economic model.

OTHER:

"Eastern Carver County LWV would like to thank you for providing us with the materials for this very informative study. Please tell the committee and writers of our awe and appreciation for the product that came out of their efforts."

"We found "Minnesota Farming 2000" to be an outstanding study. It provided background, current information, and a fair presenationt of issues. Hats off to the committee. However, we found terminology used in the consensus questions to be so general that response was challenging."--Jackson Area LWV

Should have had study available without a password.--LWV Mpls

The unit felt a number of options mentioned in the report were left out of the consensus (see attached)--LWV Mpls #53

"Eldred and I presented this questionnaire to our local LWV in December. we had a lively discussion which brought out many comments and questions. There was much to be learned from this study.

We enjoyed being a member of the study group, and appreciate all the work and effort some of you put into it. You are all special dedicated people. Thanks for my writeup in the Voter. Best wishes for the New Year, Eldred and Mary Phillips

See General Comments in ROMAFH supplement

No questions involved food safety issues such as antibiotics, etc.
There was overall frustration with the questions because topic is so complex and the questions were too ambiguous. We were not willing to make a commitment to such broad support.--St Louis Park LWV

All the supports in Question 5 should be available to all citizens.--5 of 6 members of Group 2, St Paul LWV.

"Many of our members are actively engaged in farming, so the discussion was very lively.....because we had new members and visitors, we had decided in advance to send the actual consensus form home with each member for filling out and immediate return....the consensus was so detailed and specific we knew, if we 'answered' it as we discussed, the focus would not be on a complete discussion, but rather on producing answers, which can be stifling.

All agreed that the publication was excellent...we have made it available to citizens of the community." Cannon Valley Area LWV

Additional comments from Cannon Valley Area LWV:

Antitrust laws MUST be enforced.

LWV should take a stand in support of positions which may not come about soon...pressure for an extended time can turn things around (as in Vietnam)

We need corporate laws to protect the grower.

We need to study food value of meat grown in confinement vs. older methods.

The state should work in some cases [in supporting mid-sized and small farms] with various existing organizations, not 'reinvent the wheel.'

ROSEVILLE

As part of our presentation we reviewed the LWVUS position and history on agriculture policy (see attached document). It appeared clear to our group that LWV can lobby many of these subjects without a separate state position.

And, also, that for many of the consensus questions, there was very little related information in the study report. We hope that this will help convention delegates focus on LWV guidelines for choosing a study!

Lee Schreurs, Coordinator
Barbara Lehn, Program Chair
Ann Berry
Diane Menanteau
Shirley Bradway

Comments for question 1:

- I think this is an ideal but is no longer practical. I do feel increased vertical integration of large corporations like Cargill, ADA, Conagra, etc., being allowed to buy and own large tracts of land is not in the state's best interest as they now control most of the processing, marketing and distribution.
- We cannot support the statement from the information available and the definition of the terms used in the statement.
- Once upon a time this was true, but the reality of the family farm contributing to the stability of rural communities is not possible in today's economy.
- It seems like a good idea- farmers need all the help they can get.

Comments for question 2:

a. support for all farms

- If this refers to means testing, this has been discussed at the federal level with both pros and cons.
- Not where there are 44,000 cattle in a few barns---
- What kind of support? Need to define, not clear.
- Maybe our national policy needs to be changed to reflect all farms, not mid-sized farms only.

b. research directed to moderate-sized farm operations

- Research should not be restricted by size of farm, but information and results available to all.
- Definition very poor, not clear.
- What kind of research, how are moderate-sized farms defined?

c. support for beginning farmers

- It's impossible to start farming without some help from somewhere. Farmers should have similar associations as other businesses.
- What kind of support, how long should support be available-- not enough information.
- Need to redefine tax situation regarding inheritance, estate?
- Offer incentives, very difficult to answer?
- Report did not detail information regarding "support for beginning farmers."
- How would support for beginning farmers be handled at the state level? Who would be responsible for such an activity/program? Cost not included in study.

d. support of innovative practices and crops for moderate-sized farms

- Innovative practices and crops that protect land, air, and water should be encouraged for any size farms.
- Needs to be encouraged for all farms.
- Why for moderate-sized farms only?
- How and who would administer such a program? Cost not included in report.

e. crisis supports based on need

- Because there are so many factors farms cannot control, a safety net is needed in times of crisis.
- How is crisis support defined? Weather related, government assistance when prices fall dramatically, foreign monetary problems, what are the criteria?
- We need more information.

Comments for question 3:

a. favor agribusiness through governmental policy

- If you mean further consolidation of the large companies (Cargill, etc.), NO. If you mean favor agribusiness as an industry (exports, etc), YES. All farming is agribusiness.
- Question not clear; need more explanation here.
- We don't know what support is, and what it would be.

b. ensure access to markets for all producers

- Do you mean favor or promote?
- We do not know how it would be implemented
- Not clear, need more information.

c. restrict size and ownership of limited liability corporate farms

- I favor the current restrictions so that at best 51% is family owned.
- How many regulations can we have that other states don't have?
- Shouldn't corporate farms be liable for damages?
- Who would be responsible at the state level to enforce? Cost?

d. monitor contracts

- Provide guidelines and regulations for farmers.
- 2000 legislation ruling is going in the right direction.
- There should be some connection between the investment amount and the pay back time.
- Not well defined—what does monitor mean?
- Not enough information, who would do the monitoring? Cost?

Comments for question 4:

a. incentives for sustainable farming practices

- Sustainable farming as defined on page 4, NO! Sustainable as practices that protect the land, air and water and provide a decent living, YES.
- Sustainable farming as covered in national policy, agree with national policy.
- What kind of incentives? Not listed in information provided.
- Who would administer at the state level? Cost?

b. incentives for contributions to clean water and air, healthy soil and conservation of wildlife

- Importance of clean water and air, healthy soil and conservation of wildlife covered in the national policy, agree with national policy.
- Incentives for contributions to clean water and air, healthy soil and conservation of wildlife is not listed in the information. How administered by state? Cost?

c. incentives for the preservation of agricultural land

- Except for flood plains and highly erodable areas that should be returned to woods and prairies-
- Preservation of agricultural land is covered in our national policy and we agree with the national policy.
- What kind of incentives? Who would administer? Cost?
- Hasn't always worked well, maybe some, defined?

d. shared liability for environmental damage between farmers and businesses under contract

- Yes, there should be some way for sharing liability.
- State's role?

e. stricter standards for animal confinement operations

- More research is needed in regards to current regulations.
- Standards not defined, lack of information.
- Are existing standards being enforced?
- Who would be responsible at the state level? Not enough information.

f. promotion of exports

- Definitions—already doing this?
- Who would be responsible at the state level? Not enough information.

g. research into genetically modified foods

- State's role?
- Research will happen whether financed by the state, federal government or agribusiness.

h. support for niche market and value added products

- Information not complete in study report.
- State's role?

i. promotion of cooperatives

- Information not complete in study report; very little reference to coops.
- State's role?

j. affordable food products for all

- State's role?
- This surely is a national/international issue.

Comments for question 5:

The ROMAFH Tuesday unit (21 members attending) votes "No Consensus" on all items under #5 with the general agreement that all of these items are valuable; however, without more definition of each and cost projections, this unit cannot vote in the affirmative.

infrastructure

- Costs are not included here or anywhere; real world has costs.
- What is a rural community? Does the state of Minnesota define rural community?
- The study report did not define rural community.
- Should the state only support rural communities (?) on infrastructure? What about the cities outside the metro area? What kinds of support?

a. education

- Why should rural areas have a different standard for educational development?
- Doesn't the extension services cover many of the areas listed in #5?

b. livable wages for workers

- Not defined, very vague.
- There is a difference in standards—livable wage is different depending on economic factors.

c. crisis assistance

- Not defined, weather, crops, exports?

d. development of leadership skills

- Not defined, information not available in study report.
- Isn't this available from extension services, seminars?
- There are leaders in rural communities, embarrassing to list "development of leadership skills," insulting to the rural community. We need to be respectful when thinking about imposing "our" standards on others.

e. community and regional planning

- Not defined in information, what role would the state have? Cost?

f. networking with farmers and community leaders

- Why needed at the state level? Need at the county and community level.
- Available through extension services, county agents, etc.

g. research into viable and sustainable rural communities

- Whose responsibility at the state level for research? Cost?
- Information not given in study.

General Comments:

1. Why no questions/discussion of "free market" vs. managed farm policy? Supposedly farmers wanted to be free of regulations, leading to the "Freedom to Farm" bill, but they ended up in big trouble. Of course, like so many significant areas, this is a federal level point.

2. We agreed that having this topic helped us notice and digest articles on agriculture-related areas. Much of this will be helpful as we revisit trade policy. However --- this was in most ways a failed study. A leadership failure? An example of what happens when program standards are ignored? Too many "turf-protectors" on the committee?

3. The committee should have agreed on a specific area of focus. Instead, the study went off in all directions.

- We could have had a very useful focus on environmental problems and solutions with specific Minnesota focus.
- We could have focused on the economy and rural communities and the special situations in Minnesota (including tax laws that impact/enable retirement or beginning farming).
- We could have studied sustainable agriculture—its promoters and detractors in Minnesota and what government policies help and hinder.

Biotechnology was timely and interesting but hardly a state-level topic. To try to cover all of the above plus was a ridiculous attempt!

4. We could have started with the national position and carefully pointed out its failings- where doesn't it cover the needs? What areas are of obvious state concern? This was never clear to me.

Overall Additional Thoughts

We are so lucky in this country to have such an abundance of safe, nutritious, low cost, beautiful food! We are also fortunate to have an abundance of good quality land and plentiful water for growing crops -- particularly here in Minnesota.

Food is Global
As observed in LWV Minnesota Farming, 2000 Farmers, particularly family farmers are the only industry that buy retail and sell wholesale. With the popularity of corporate mergers, only a very few companies control processing, marketing, and distribution of farm products.
Farmers are the sweat shops of the food industry.

So, what's happening on Minnesota Farms?
The number of farms and number of farmers is lower, so they have much less clout in Minnesota and nationally in effecting policy.
Average age of farmers is higher.
Family farm corporations and limited partnerships are becoming common, as a means of survival.

Most pigs, cattle,and poultry are now raised in "factory farms".
Just as the Walmarts, Targets, Cubs and Home Depots have replaced the mon & pop variety and grocery stores, and the corner drug store, to think that we can go back to small diversified farms of 75 years ago is not going to happen, except in a few cases where the farm has been turned into a tourist attraction with B&B facilities or farm museums, or the farmer has one or more non-farm jobs.

What's different about farming? Primarily the land.

Holland considers their farms the "lungs" of the country. They want to preserve their small farms for open space, so they are highly subsidized. Prices of farm products are kept high, imports are highly regulated and as a result the cost of food is also much higher than here.

Agriculture Study
Comments on Consensus Questions

AH=Arden Hills/Shoreview
Bl=Bloomington
BLA=Brainerd Lakes Area
BrCtr=Brooklyn Center
BPOMG=Brooklyn Park-Osseo-Maple Grove
BufMon=Buffalo-Monticello
Cass=Cass Lake-Walker-Grand Rapids

ECC=Eastern Carver County
Ed=Edina
Frid=Fridley
JA=Jackson Area
MEPH=Minnetonka-Eden Prairie-Hopkins
Mpls=Minneapolis
NB=New Brighton

Nfield=Northfield
Owa=Owatonna
PkRap=Park Rapids
Robb=Robbinsdale
ROMAFH=Roseville-Maplewood-Falcon Hts
StCl=St Cloud
SLP=St Louis Park
StP=St Paul
WBL=White Bear Lake
WCG=Woodbury-Cottage Grove

		yes/no/no consensus	
1a	AH/Sh:	9/7/0	questioned the word "socially"
	Bl	5/0/0	
	BLA:	9/0/0	"Socially" is not a good word
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	Evidence that more, smaller farms are better for communities and food supply; small farms produce people with good values
	Ed	31/4/3	Minority comments: not convinced that the traditional family farm is the <u>most</u> desirable mode; have concern over small farmers hanging on to their farms as their children leave--need larger farms; concern about the state taxing businesses out of the state; not a simple yes or no question
	Frid	4/1/3	Sounds wonderful; is it possible economically? Seems like a step back in time. The Amish are doing this successfully, but their lifestyle is radically different from most of us. Don't spend energy on something that's not going to happen!
	JA	12/0/0	
	MEPH	3/5/0	All agreed the 'family farm' needs re-definition. Most of the group felt that a blend of corporations and family farms would be desirable.

Mpls	40/13/6	Family farm is desirable, but not to the exclusion of other modes of production. Topic too large for LWV. Could bringing in other industry be an equally strong way of maintaining the stability of rural communities? The assumption that the family farm is the cornerstone of rural community stabilityis not necessarily true. Can have a very large farm owned by a family. This is a very complex question. In general the unit supports small and mid-sized farms. There is great concern about the environment from all but sustainable agriculture, however, and also concern regarding the exploitation of animals, humans and the environment in factory farms.
NB	7/0/0	
Nfield	12/0/0	-the concept of ownership and being invested makes for better stewardship, provides anchoring to the land, encourages future orientation -"the best fertilizer is the footsteps of the owner"--Pliny
Owa	9/0/0	
PkRap	11/2/0	drop "most" and add "highly" before "socially desirable"
Robb	11/0/0	
ROMAFH	16/7/6	no opin. See suppplement.
StCl	18/0/0	
SLP	4/4/7abst.	The statement is too ambiguous. There was some very serious thinking with the result most felt was a weighty complex topic. The group was concerned about the vagueness of the question. The challenge may be to produce commodities in an environmentally sustainable manner.
StP	11/3/0	This is a naive statement in light of our current business climate. For the future there are some aspects of small farms we would like to save but they may not be viable. We want diversity, not monopolies.
WBL	19/0/0	
WCG	8/0/0	

2a	AH/Sh:	9/7/0	What kind of support? including hobbyfarms? Set standards, limitations
	Bl	0/5/0	
	BLA:	0/9/0	Target all but large corporate farms
	BrCtr:	0/4/0	We support all family farms, corporate farms if family related, small farms; no to commercial and corporate farms
	BPOMG:	0/9/0	
	BufMon	0/5/0	
	Cass	0/7/0	
	ECC	0/0/13	what is meant by "support?" Would rather see the question by type of farm Other ways to ask about supports
	Ed	0/38/0	give less support for large, privately held businesses
	Frid	0/8/0	
	JA	0/0/12	not a yes-no question. kind of support needs to be specified. More specific info needed. Emphasize support.
	MEPH	0/8/0	We assumed that 'support' meant subsidy support, so we answered NO. All agreed that educational support <u>was</u> needed for all sizes of farms.
	Mpls	5/30/22	Not for large corporations. Different support for different kinds, eg global marketing. Too vague. Define support. Financial?
	NB	1/6/0	Prefer not to support corporate farms; support limited, if at all
	Nfield	0/12/0	statement is too broad; need a def'n of support; large farms don't need support
	Owa	3/6/0	
	PkRap	13/0/0	yes if support for family farms, no if for corporate farms
	Robb	5/6/0	
	ROMAFH	2/24/2no opin.	See supplement.
	StCl	12/6/0	Support for <u>all</u> sizes of farms should not end up being at the expense of the moderate sized operations/smaller operations. Should not mainly go to large operations.
	SLP	1/12/0	problem deciding what support would mean--could it mean for ex. support for college tuition for farmers? The point was made that we as consumers should pay a fair price for food so the farmers aren't holding the bag and losing money.
	StP	0/13/1	Group questioned word "support". This influenced the vote. Concerns centered around the very large and very small farms and what was implied by

"support."

WBL	5/14/0	Targeted subsidies that still encourage family farms
WCG	6/2/0	This was a difficult statement to concur with because of the vagueness of the words 'support' and 'all.' What kind of support? what size farm? We felt small hobby farms and agribusiness (large farms) should not receive financial support; moderate family type farms could under some circumstances.

2b	AH/Sh:	9/7/0	Only to moderate? What is moderate Support for research is appropriate for the University or other agriculture schools, with the information made available to all farmers through Extension Services and/or County offices
	Bl	5/0/0	
	BLA:	9/0/0	
	BrCtr:	4/0/0	
	BPOMG:	8/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	
	Ed	38/0/0	
	Frid	8/0/0	
	JA	0/12/0	Define moderate-sized. There are family corporations, partnerships, sharing machinery but filing income separately. *Research also needed by small farms, all sizes.
	MEPH	8/0/0	
	Mpls	50/6/1	
	NB	7/0/0	
	Nfield	12/0/0	
	Owa	8/0/1	
	PkRap	12/0/1	
	Robb	10/1/0	research should also be directed to include smaller sized farms, because they provide valuable products for consumers ie. organic crops, meat/poultry free of additives, etc.
	ROMAFH	18/4/6	no opin. See supplement
	StCl	18/0/0	
	SLP	9/3/0	research is supported at the University level
	StP	13/0/1	We need to look at the connection between agribusiness and the curriculum currently taught at the UofMn. Curriculum is focused on large farm practice and not sustainable agriculture. We assume in answering 'yes' that a small or mid-sized farm means an independent farmer.
	WBL	19/0/0	research directed to all farms
	WCG	8/0/0	

2c	AH/Sh:	9/7/0	
	Bl	5/0/0	
	BLA:	9/0/0	
	BrCtr:	4/0/0	help beginning farmers take classes and get on-site education
	BPOMG:	7/1/0	emphasis on loans
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	12/1/0	Remove barriers for beginning farmers
	Ed	36/2/0	
	Frid	3/4/1	classes in high schools and colleges; what kind of support? question too vague
	JA	7/2/2	support--extensions help. loan breaks, tax benefits, inheritance laws
	MEPH	8/0/0	
	Mpls	42/1/15	
	NB	7/0/0	
	Nfield	12/0/0	-"If you can afford to start farming, you can affort to retire." Brynnie Rowberg's uncle -beginning+ suggests starting cold--probably not what's meant -mentoring and financial support
	Owa	9/0/0	
	PkRap	9/0/4	define beginning farmer; we do not support providing help to corporations
	Robb	11/0/0	
	ROMAFH	21/1/6 no opin.	See supplement
	StCl	18/0/0	support with standards
	SLP	14/1/0	
	StP	13/1/0	Poorly worded question. Yes answers were predicated on 'support' meaning help for beginning farmers by supporting organizations whose purpose is to help young farmers through providing primarily education, mentoring, or loans. 'Support' should not involve direct grants to farmers.
	WBL	19/0/0	including education; question doesn't define need or crisis, too vague
	WCG	7/0/1	

2d	AH/Sh:	9/7/0	only moderate?
	Bl	5/0/0	
	BLA:	9/0/0	add "sustainable" after "innovative"
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	What is "innovative practice"? If GMO, then no.
	Ed	37/0/0	Concern that this should apply to all sized farms. Goal should be to keep Mn as a premier agricultural state (7 members)
	Frid	5/0/3	what kind of support? question too vague
	JA	12/0/0	all sizes need support
	MEPH	8/0/0	
	Mpls	48/2/6	
	NB	7/0/0	
	Nfield	12/0/0	yes. but depends on which crops, and what the innovation is--not genetically modified crops or high rises for cows like they have in the Netherlands
	Owa	9/0/0	
	PkRap	13/0/0	
	Robb	11/0/0	
	ROMAFH	23/0/5	no opin. See supplement
	StCl	18/0/0	
	SLP	8/3/0	Terms moderate-sized and innovative raised questions
	StP	14/0/0	
	WBL	19/0/0	
	WCG	8/0/0	

2e	AH/Sh:	16/0/0	for floods, droughts, and other acts of nature
	Bl	5/0/0	
	BLA:	9/0/0	Def'n of crisis? Should we subsidize hobby farms?
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	0/0/5	crisis and need require more refined definitions
	Cass	0/0/8	Govt should not control so closely what can be grown. Needs more study and analysis
	ECC	0/0/13	Crisis sliding scale; define "crisis"--short term emergency? ongoing dependency? Countries whose history and/or culture dictate different practices compete against US globally
	Ed	37/0/0	Define crisis as acts of nature (7 members)
	Frid	6/2/0	govt "help" is not actually helpful; too much lag time involved; solutions can actually do harm
	JA	12/0/0	"With 4 of the 12 respondents being very involved farm wives, our discussion was well informed. We found terms to be so general, making responses complex." [*applies to all questions in 2, presumably]*
	MEPH	8/0/0	
	Mpls	31/2/25	
	NB	7/0/0	
	Nfield	0/0/12	vague question; Are low prices a crisis? Yes if natural disaster.
	Owa	8/0/0	
	PkRap	12/0/1	define crisis, define need
	Robb	11/0/0	
	ROMAFH	25/2/1	See supplement
	StCl	18/0/0	Crisis supports should be based on more than need--supports should go to those whose practices are socially, environmentally and fiscally responsible. Support when crisis is based on circumstances beyond farmer's control; support those whose practices are environmentally sustainable and whose treatment of animals and laborers is humane.
	SLP	14/1/0	
	StP	7/1/6	Does 'need' mean: on welfare, suffered a flood, bad farming practices, fuel costs, international actions?? Define. Need should be based on a crisis situation beyond the farmer's control. In a crisis situation farmers should have State-based help in addition to and more immediately than Federal help.
	WBL	5/1/13	not to continue failed policies, only in times of natural disaster
	WCG	8/0/0	

3a	AH/Sh	0/9/7	too vague
	Bl	0/0/5	
	BLA:	0/9/0	
	BrCtr:	4/0/0	*inconsistent answer?*
	BPOMG:	0/9/0	
	BufMon	0/5/0	
	Cass	0/8/0	
	ECC	0/13/0	If this means favoring agribusiness over family farm, then no (question not really clear)
	Ed	0/21/16	
	Frid	8/0/0	*inconsistent answer?*
	JA	0/12/0	We interpreted agribusiness to mean ConAgra, Cargill, IBP, ADM. These giant corporations are already too powerful, controlling too greatly the farmers' markets.
	MEPH	0/8/0	
	Mpls	0/52/6	
	NB	0/1/6	not to detriment of family/medium farms
	Nfield	0/12/0	
	Owa	2/7/0	The answers to 3a,b,c,d are to favor the small farm.
	PkRap	0/10/3	
	Robb	8/3/0	
	ROMAFH	2/12/0	See supplement
	St Cl	0/18/0	
	SLP	1/5/9	pits farmer against corporations; doesn't give enough definition
	StP	0/13/1	
	WBL	8/11/0	
	WCG	0/7/0	

3b	AH/Sh:	9/7/0	those who disagreed feel this is not possible
	Bl	0/0/5	
	BLA:	9/0/0	emphasize "all" Identify products; label GMO products?
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	
	Ed	23/2/12	needed more info to answer question
	Frid	0/8/0	question "all": small and moderate farms are the ones that need the access, not the corporate farms that already have it (7 would vote YES for small and moderate farms)
	JA	12/0/0	
	MEPH	4/4/0	the word 'all' caused the conflict, and some felt changed the question
	Mpls	46/1/10	want fair access to all markets; ensure is impractical
	NB	7/0/0	for small and large, comment by all
	Nfield	12/0/0	-esp. small producers, local markets -much discussion about necessity for international markets and whether we want to encourage
	Owa	9/0/0	
	PkRap	13/0/0	
	Robb	11/0/0	
	ROMAFH	24/3/1	no opin. See supplement
	StCl	14/3/1	2 people who voted no would voted yes if the word "ensure" were changed to "facilitate"
	SLP	1/2/13	too ambiguous. What is market? state? national? international?
	StP	13/1/0	
	WBL	19/0/0	
	WCG	8/0/0	

3c	AH/Sh:	9/2/5	
	Bl	5/0/0	
	BLA:	9/0/0	
	BrCtr:	3/0/0	investors and corporations should pay their share of losses
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	Not just restrict size and ownership but reexamine the restriction on the liability
	Ed	25/1/11	needed more info to answer question
	Frid	0/0/8	continue present restrictions; confusion regarding "corporate farms" definition
	JA	0/12/0	Since sizes of corporate farms and the giant corporations (ConAgra, Cargill) are not restricted, we did not feel farm size should be limited.
	MEPH	0/0/8	confused, because 'limited liability' corporate farms were new in 2000
	Mpls	45/0/12	need more info to reach consensus; had a hard time understanding how to restrict size and ownership
	NB	5/1/1	eliminate limited liability
	Nfield	12/0/0	what is optimum size? there should be a limit on size should be liability for environmental damage and hazards to public health we don't like whole idea of limited liability corporate farms
	Owa	8/0/0	
	PkRap	12/0/1	
	Robb	9/2/0	
	ROMAFH	17/5/6 no opin.	See supplement
	StCl	18/0/0	
	SLP	6/0/9	
	StP	9/1/4	LLC favors large scale corporate endeavors esp. in confinement animal agriculture, and we should oppose the LLC concept.
	WBL	9/1/9	regulation rather than restriction; how are cooperatives different? Bad question: don't understand size and ownership restrictions
	WCG	8/0/0	

3d	AH/Sh:	9/0/7	too vague; what contracts-during consolidation, contract farming?
	Bl	0/0/5	we think it's necessary to have a state legal beagle yet fear bureaucracy
	BLA:	9/0/0	
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	
	Ed	34/0/3	Monitor only as much as applies to other industries Is the state the best monitor? This implies that the farmer isn't smart enough to sign a decent contract. We don't know enough to answer this well.
	Frid	1/1/6	what is meant by monitoring? If the 2000 bill is working, ok, then keep it; if it's not then fix it!
	JA	12/0/0	needed for protection of farmers, even though it is a govt. form of control
	MEPH	8/0/0	felt the Attorney General would be the one to monitor. Should be protections, but not necessarily monitor individual contracts. Develop a system of contracts with guidelines.
	Mpls	35/3/10	Had a problem with the word 'monitor.' Did not get enough info to answer these questions well. Set up state regulations and guidelines for contracts; include grading, weighing, quality control. Need enforceability of laws.
	NB	7/0/0	
	Nfield	12/0/0	-how is monitoring accomplished? -what are the consequences of a complaint? -insurance industry is a good model
	Owa	9/0/0	
	PkRap	13/0/0	
	Robb	11/0/0	
	ROMAFH	16/3/9 no opin.	See supplement
	StCl	18/0/0	
	SLP	13/1/1	
	StP	14/0/0	
	WBL	19/0/0	
	WCG	1/0/7	majority felt there was not enough info to give an answer

4a	AH/Sh:	16/0/0	
	Bl	5/0/0	
	BLA:	9/0/0	
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	ECC	13/0/0	strong yes!
	Ed	37/0/0	
	Frid	8/0/0	
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	54/1/2	
	NB	7/0/0	
	Nfield	12/0/0	
	Owa	9/0/0	
	PkRap	14/0/0	
	Robb	11/0/0	
	ROMAFH	22/0/6 no opin.	See supplement
	StCl	18/0/0	
	SLP	13/0/2	what is meant by incentives? too vague
	StP	13/0/0	
	WBL	19/0/0	
	WCG	8/0/0	

4b	AH/Sh:	16/0/0	
	Bl	5/0/0	
	BLA:	9/0/0	
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	
	Ed	37/0/0	
	Frid	8/0/0	
	JA	12/0/0	
	Nfield	12/0/0	
	MEPH	8/0/0	
	Mpls	57/0/0	financial incentives, eg tax breaks
	NB	7/0/0	
	Owa	9/0/0	
	PkRap	14/0/0	
	ROMAFH	26/0/2 no opin.	See supplement
	StCl	18/0/0	
	SLP	14/0/1	
	StP	13/0/0	
	WBL	19/0/0	also strengthen regulation of existing protections
	WCG	8/0/0	

4c	AH/Sh:	16/0/0	if not mandatory
	B;	5/0/0	
	BLA:	9/0/0	assume you mean maintaining land for ag and not development
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	
	Ed	37/0/0	One person prefers "highly productive" agric. land
	Frid	8/0/0	
	JA	12/0/0	We question total govt. control through restrictions.
	MEPH	8/0/0	
	Mpls	47/1/7	have trouble with wording. Would seem that in some rural comunities it would be good to use farm land for light industry. An adequate supply of land
	NB	7/0/0	
	Nfield	12/0/0	
	Owa	9/0/0	
	PkRap	14/0/0	define agricultural land
	Robb	11/0/0	
	ROMAFH	26/0/2 no opin.	See supplement
	StCl	18/0/0	
	SLP	15/0/0	
	StP	13/0/0	
	WBL	19/0/0	
	WCG	8/0/0	

4d	AH/Sh:	16/0/0	
	Bl	5/0/0	
	BLA:	9/0/0	lawyer: not good contract law!
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	0/5/0	*[fit with their other answers?]*
	Cass	8/0/0	
	ECC	13/0/0	shared liability an important point
	Ed	37/0/0	
	Frid	8/0/0	
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	49/1/7	
	NB	7/0/0	
	Nfield	12/0/0	how does this relate to limited liability corporation?
	Owa	8/0/0	
	PkRap	3/12/0	*[fit with other answers?]*
	Robb	11/0/0	
	ROMAFH	18/0/10	no opin. See supplement
	StCl	18/0/0	Business should have the major responsibility in the liability costs. This would be an incentive for business to steward the environment and place stewardship of land, air, water, livestock health, etc. in the contracts with the producer.
	SLP	13/0/2	
	StP	13/0/0	
	WBL	13/0/6	question unclear on who "businesses" are
	WCG	8/0/0	

4e	AH/Sh:	12/0/4	enforce existing laws. Standards should be at the State or Federal level. Depends on the standards
	BI	5/0/0	
	BLA:	9/0/0	
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	concerns for animal cruelty
	Ed	37/0/0	
	Frid	8/0/0	
	JA	0/12/0	standards are already very strict in Minn., and are above the national average
	MEPH	8/0/0	
	Mpls	57/0/0	concern regarding exploitation of animals
	NB	7/0/0	
	Nfield	12/0/0	include no subtherapeutic antiobiotics; no growth hormones; public health issues; need more space per animal
	Owa	9/0/0	
	PkRap	0/9/7	
	Robb	11/0/0	
	ROMAFH	21/2/5no opinion	See supplement
	StCl	18/0/0	
	SLP	15/0/0	
	StP	13/0/0	There are moral and health questions also about animal confinement, intensive feeding, antibiotics, and hormones that are not considered in these policy questions.
	WBL	19/0/0	
	WCG	8/0/0	

4f	AH/Sh:	16/0/0	
	Bl	6/0/0	
	BLA:	9/0/0	identify GMO foods; control GMO foods
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	every city, county, person should be selfsufficient first, then export
	Ed	37/0/0	
	Frid	7/0/1	
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	51/0/1	see national posn on agric. and trade
	NB	7/0/0	
	Nfield	0/0/12	transportation of foods has environmental and energy costs; we shouldn't be insular--other places may need food we grow; where will markets for small farms be? Is promotion of exports shortsighted? People producing their own food is the ideal toward which we should be moving; does promoting exports assume large corporations? the deck is stacked in favor of corporate farms; we're depleting our natural resources
	Owa	8/0/0	
	PkRap	14/0/0	
	Robb	11/0/0	
	ROMAFH	27/0/1no opinion	See supplement
	StCl	8/9/0	Two no votes are concerned about export promotion becoming the focus of $ expenditure--want $ more equitably to local grown'/local use--getting away from fossil fuels; some are concerned about the impact of exports on the farmers and economies ofother countries.
	SLP	15/0/0	
	StP	8/2/3	
	WBL	19/0/0	
	WCG	8/0/0	

4g	AH/Sh:	16/0/0	research, but not necessarily bans
	Bl	5/0/0	
	BLA:	9/0/0	research into dangers and problems too
	BrCtr:	3/1/0	
	BPOMG:	7/2/0	state should set basic rules and guidelines for accountability
	BufMon	5/0/0	
	Cass	7/0/0	
	ECC	3/5/5	should research be done by state or nationally strong labeling needed to give people choice
	Ed	37/0/0	research into the EFFECTS of gen. mod. foods (7)
	Frid	8/0/0	
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	43/6/6	Agriculture is a huge topic. The group felt that a study of genetically modified crops should be a separate undertaking. It needs more thorough treatment than was available in this study and more opportunity to discuss its ramifications... Don't want lots of money going to develop gm foods, but do need more info.
	NB	7/0/0	at university level? must know what level and by whom concern about longterm effects role of pesticides
	Nfield	10/2/0	include environmental effects; public health; labeling; biodiversity regulatory agencies (FDA etc) should be watchdogs; some research should be independent of corporations
	Owa	9/0/0	Much of this research should be directed toward determining what these foods will do to us and to animals--safety?
	PkRap	12/0/2	
	Robb	11/0/0	
	ROMAFH	28/0/0	see supplement
	StCl	17/1/0	research into genetically modified foods is already underway. We need to <u>guide</u> it. Thus we recommend the following: 1. establishment of ethics (<u>crucial</u>) in this research area. 2. Function of the research--does it benefit the whole vs shareholders/investors? Is it just to allow use of herbicides etc. from agribusiness? 3. the research at publicly funded institutions should <u>not</u> be owned by private sector corporations 4. If 'feeding the world' is used as an argument to promote the

		GM technology (research) then make sure those doing it or "profitting" from it actually implement feeding the poor in the US and in the world. 5. Genetically modified foods should be labelled and products made using genetically modified grains etc. also labelled.
SLP	14/1/0	
StP	13/0/0	this question includes strong pros and cons that generated a lot of discussion.
WBL	12/0/7	
WCG	8/0/0	

4h	AH/Sh:	9/2/5	what kind of support?
	Bl	5/0/0	
	BLA:	9/0/0	add "organic"
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	yes, for small and medium niche markets
	Cass	8/0/0	
	ECC	13/0/0	
	Ed	34/3/0	what does support mean (1)
	Frid	0/0/8	could not find relevant info to support this
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	31/14/10	
	NB	0/2/5	too broad
	Nfield	12/0/0	hogs are value-added, having been fed corn; "value-added" is a red flag term; should not include confinement animals as value-added; no problem with 'niche' marketing
	Owa	8/1/0	
	PkRap	13/0/0	
	Robb	11/0/0	
	ROMAFH	21/0/7 no opinion	see supplement
	StCl	18/0/0	
	SLP	13/2/0	Question use of "support"-what does it mean?
	StP	7/0/7	"Support" unclear. Niche markets may be OK in the beginning but farmers should not be limited to those forever.
	WBL	18/1/0	
	WCG	8/0/0	

4i	AH/Sh:	16/0/0	
	Bl	5/0/0	
	BLA:	9/0/0	should be farmer controlled (like in old days) vs. large coops are more like corporations
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	
	Ed	37/0/0	
	Frid	1/7/0	
	JA	12/0/0	Cooperatives and corporations are not the same. We support cooperatives, such as farmers combining for marketing, buying of supplies.
	MEPH	0/0/8	
	Mpls	48/0/8	but in pure cooperatives, not big business; promotion is a bad word; support cooperatives
	NB	7/0/0	
	Nfield	11/1/0	yes to processing and marketing cooperatives; NO to production coops (closed coops) which can behave like big corporations
	Owa	4/3/2	for the smaller farms
	PkRap	12/0/1	
	Robb	11/0/0	
	ROMAFH	27/0/1no opinion	see supplement
	StCl	16/0/2	Attempts should be made to maintain open coops (allow participation, voting, discussion; decision making accessible to all members (large and small operators). If coop becomes 'closed' then incentives for those disenfranchised to form their own coop. Coops might provide a way for farmers to get health insurance.
	SLP	12/3/0	
	StP	5/1/8	We would support promotion of some cooperatives that serve the small and midsized farmer but would not support promotion of some that function like agribusinesses. Cooperatives should provide promotion, marketing, legal assistance that serve small and mid-sized farmers' interests.
	WBL	10/1/2	some regulation of cooperatives
	WCG	8/0/0	

4j	AH/Sh:	10/0/6	How??
	Bl	5/0/0	
	BLA:	0/0/9	cheap food has caused a lot of other problems
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	0/5/0	
	Cass	8/0/0	
	ECC	0/1/12	define "affordable" and "all": poor question
	Ed	30/7/0	doesn't fit into agric. policy (7)
	Frid	8/0/0	dumb question!
	JA	8/4/0	We support affordable products, but not at the cost of farmers who are already receiving too small a percentage of the food dollar.
	MEPH	8/0/0	Affordable prices should be a goal, but not at the expense of the farmers.
	Mpls	42/11/4	unclear; too broad for agreement. Support for the poor to purchase food at market prices. .
	NB	7/0/0	
	Nfield	0/0/12	impossible, ridiculous question; we assume we ought to pay more for food; not everyone can afford food now
	Owa	7/1/1	
	PkRap	1/12/0	not at the expense of farmers
	Robb	11/0/0	
	ROMAFH	28/0/0	see supplement
	StCl	13/5/0	It is the concept of cheap food that has driven us (in the US) to many of the crises in agriculture we are facing today. We have <u>cheap</u> food at the expense of many other important considerations. The <u>yes</u> vote is thus premised on the following: all people should be able to afford good (healthy) food but food should not be cheap at the expense of our health, environmental stewardship or workers in the production, transportation, processing etc of food commodities. Farmers need to get fair prices.
	SLP	7/5/0	General feeling that farmers should be paid for the services they provide. Affordable food products is too vague and should be qualified.
	StP	1/7/6	Some products should be priced to be as expensive as they are to the environment. This is a very poorly worded question. We would support adequate <u>nutrition</u> for all.
	WBL	6/0/13	seems ill defined, too vague; prefer liveable wages so food is affordable, rather than price controls bad question: it is a federal, not state, policy
	WCG	6/0/2	Idealized concept--needs more clarification

5a	AH/Sh:	9/2/5	
	Bl	5/0/0	
	BLA:	9/0/0	
	BrCtr:	3/1/0	
	BPOMG	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	
	Ed	29/7/1	
	Frid	8/0/0	
	JA	10/2/0	Rural communities, as they become smaller, need assistance at a higher (state) level to be sustainable. [*applies to all of section 5]*
	MEPH	8/0/0	
	Mpls	48/3/6	not verywell defined; insufficient info Group agreed that the topic was too broad. One section of the study would have been enough. By the time we got to the end it was overwhelming. Small communities should be given incentives to find other local area industries besides farming.
	NB	7/0/0	
	Nfield	12/0/0	no four-lane highways
	Owa	9/0/0	
	PkRap	14/0/0	
	Robb	11/0/0	yes, but not at expense of other communities who may request/require support for infrastructure
	ROMAFH	5/0/21/2no opinion	see supplement
	StCl	18/0/0	*Comments apply to all of section 5:* **MN** should support <u>rural communities</u> regardless of whether agriculture and farming are the economic base. Rural community needs could include any of the following, for ex: --support of older people living there;--adequate roads/healthcare access/proper waste water treatment, etc; --safe, affordable housing; --liveable wages for workers including immigrant workers, also affordable safe healthy living conditions including housing for them; --grants and loans to rural cities to utilize waste water; --education of young people k-12 including assistance to those who have English as a second language
	SLP	14/1/0	
	StP	14/0/0	
	WBL	16/1/2	
	WCG	8/0/0	

5b	AH/Sh:	9/0/7	
	Bl	5/0/0	
	BLA:	9/0/0	
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	
	Ed	37/0/0	
	Frid	7/0/1	
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	52/0/4	Provide funds for the traditional agric. extension (MN Extension service) to continue their programs
	NB	6/0/1	why is this question here--aren't we already doing this?
	Nfield	12/0/0	
	Owa	9/0/0	
	PkRap	14/0/0	
	Robb	11/0/0	yes, but not at expense of other communities who may require support for education
	ROMAFH	1/0/21/6no opinion	see supplement
	StCl	18/0/0	
	StP	13/0/1	Education was understood to include conflict resolution, retraining, expansion of sustainable markets, consumer knowledge of food origin, quality, transportation
	WBL	18/0/1	
	WCG	8/0/0	

5c	AH/Sh:	9/0/7	
	Bl	5/0/0	
	BLA:	9/0/0	
	BrCtr:	4/0/0	state should gradually raise minimum wage
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	what does "liveable" mean?; "liveable wages" not just for rural communities
	Ed	31/0/6	
	Frid	4/0/4	migrant workers? anybody?
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	42/2/13	unclear question
	NB	7/0/0	simpleton question
	Nfield	12/0/0	very important--state shouldn't subsidize factories that don't pay liveable wage
	Owa	9/0/0	
	PkRap	13/1/0	
	Robb	11/0/0	
	ROMAFH	1/0/0/6 no opinion	see supplement
	StCl	18/0/0	
	SLP	15/0/0	What does liveable wages mean? Minimum wage?
	StP	14/0/0	Impt. when it refers to migrant workers and full-time workers, not teenagers detasseling corn, for ex. Voted yes with understanding this question refers to full-time workers.
	WBL	19/0/0	not just for farmers
	WCG	3/2/3	not against liveable wages but should not only be exclusive to rural communities. State could only require in lieu of receiving financial support.

5d	AH/Sh:	9/0/7	
	Bl	5/0/0	
	BLA:	9/0/0	natural disaster or global economy
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	0/0/13	what is "crisis"..emergency or ongoing dependence?
	Ed	37/0/0	insert "major" crisis (7)
	Frid	8/0/0	we have that now!
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	34/0/23	unsure what kind of crisis is meant; not very well defined; insufficient information
	NB	7/0/0	
	Nfield	12/0/0	
	Owa	8/0/1	
	PkRap	14/0/0	
	Robb	10/1/0	
	ROMAFH	7/0/21	see supplement
	StCl	18/0/0	
	SLP	14/0/1	does this mean environmental crisis also?
	StP	7/0/7	Question too vague. Can't have everything. Question should have offered opportunity to indicate priorities. Yes vote indicated crisis should be defined as events outside the farmers' control.
	WBL	19/0/0	what kind of crisis?
	WCG	8/0/0	

5e	AH/Sh:	9/0/7	
	Bl	0/0/5	
	BLA:	9/0/0	
	BrCtr:	4/0/0	leadership skills for farmers
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	
	Ed	32/4/1	
	Frid	7/0/1	included in "b" education; seems redundant
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	46/8/1	
	NB	0/0/1	through extension services?
	Nfield	12/0/0	
	Owa	9/0/0	
	PkRap	11/2	
	Robb	11/0/0	
	ROMAFH	1/6/21	see supplement
	StCl	18/0/0	
	SLP	15/0/0	
	StP	5/5/4	Yes voters interpreted this as being done in order to rebuild rural communities. This question as well as 5g and 5h are about capacity building for rural communities but it won't happen without sound economic base.
	WBL	7/0/11	not a well written question--whose leadership skills, farmers or community leaders, business people or what? have them join League!
	WCG	8/0/0	

5f	AH/Sh:	9/0/7	
	Bl	5/0/0	
	BLA:	9/0/0	
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	strong yes
	Ed	37/0/0	
	Frid	7/0/1	continue/improve what we're doing
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	48/8/0	
	NB	7/0/0	
	Nfield	12/0/0	terribly important!
	Owa	9/0/0	
	PkRap	14/0/0	
	Robb	11/0/0	
	ROMAFH	7/0/21	see supplement
	StCl	18/0/0	
	SLP	15/0/0	
	StP	13/0/0	Planning should promote viable economic model
	WBL	18/0/0	
	WCG	8/0/0	

5g	AH/Sh:	9/0/7	
	Bl	0/0/5	
	BLA:	9/0/0	
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	strong yes
	Ed	37/0/0	
	Frid	7/0/1	continue/improve what we're doing
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	46/0/10	
	NB	7/0/0	
	Nfield	12/0/0	
	Owa	8/0/1	
	PkRap	14/0/0	
	Robb	11/0/0	
	ROMAFH	1/0/21/6	see supplement
	StCl	18/0/0	
	SLP	15/0/0	
	StP	7/1/5	
	WBL	18/0/0	continue at current levels
	WCG	8/0/0	

5h	AH/Sh:	9/0/7	The "disagree" and "no consensus" members feel that the state should provide a level of support for these things for all communities, not just rural. This seems to pit rural vs. urban. [*this applies to all questions in 5, presumably]*
	Bl	5/0/0	
	BLA:	9/0/0	
	BrCtr:	4/0/0	
	BPOMG:	9/0/0	
	BufMon	5/0/0	
	Cass	8/0/0	
	ECC	13/0/0	strong yes
	Ed	37/0/0	
	Frid	8/0/0	
	JA	12/0/0	
	MEPH	8/0/0	
	Mpls	55/1/1	The unit was concerned about the LWVUS positions emphasizing 'economically viable farms' and 'increased reliance on the free market.' If agribusiness has its way, the only economically viable farms will be factory farms controlled by agribusiness. Further, the free market does not seem to work very well for small and mid-sized farms.
	NB	7/0/0	yes, if not much money spent
	Nfield	12/0/0	
	Owa	9/0/0	
	PkRap	14/0/0	
	Robb	11/0/0	the active, vigorous activity of small towns of the past (20-40 years ago), seems to be a thing of the past. I would this would be a real loss to farming communities, and whatever could be done to sustain small towns would be desirable.
	ROMAFH	7/0/21	See supplement
	StCl	18/0/0	
	SLP	15/0/0	
	StP	7/3/3	The way state of MN does rural economic development needs to be rethought.
	WBL	18/0/0	
	WCG	8/0/0	

OTHER:

"Eastern Carver County LWV would like to thank you for providing us with the materials for this very informative study. Please tell the committee and writers of our awe and appreciation for the product that came out of their efforts."

"We found "Minnesota Farming 2000" to be an outstanding study. It provided background, current information, and a fair presenationt of issues. Hats off to the committee. However, we found terminology used in the consensus questions to be so general that response was challenging."--Jackson Area LWV

Should have had study available without a password.--LWV Mpls

The unit felt a number of options mentioned in the report were left out of the consensus (see attached)--LWV Mpls #53

"Eldred and I presented this questionnaire to our local LWV in December. we had a lively discussion which brought out many comments and questions. There was much to be learned from this study.

We enjoyed being a member of the study group, and appreciate all the work and effort some of you put into it. You are all special dedicated people. Thanks for my writeup in the Voter. Best wishes for the New Year, Eldred and Mary Phillips

See General Comments in ROMAFH supplement

No questions involved food safety issues such as antibiotics, etc.
There was overall frustration with the questions because topic is so complex and the questions were too ambiguous. We were not willing to make a commitment to such broad support.--St Louis Park LWV

All the supports in Question 5 should be available to all citizens.--5 of 6 members of Group 2, St Paul LWV.

LWVUS STATEMENT OF POSITION ON FEDERAL AGRICULTURE POLICY

Position in Brief:
Promote adequate supplies of food and fiber at reasonable prices, and support economically viable farms, environmentally sound farm practices and increased reliance on the free market.

Statement of Position on Federal Agriculture Policy as announced by National Board, October 1988:

The LWVUS believes that federal agriculture policies should promote adequate supplies of food and fiber at reasonable prices to consumers, farms that are economically viable, farm practices that are environmentally sound and increased reliance on the free market to determine prices.

Sustainable Agriculture: Federal policy should encourage a system of sustainable, regenerative agricultural production that moves toward an environmentally sound agricultural sector. This includes promoting stewardship to preserve and protect the country's human and natural agricultural resources.

Research and Development: Agricultural research, development and technical assistance should continue to be a major federal function. Resources should be targeted to developing sustainable agricultural practices and to addressing the needs of mid-size farms.

Agricultural Prices: The LWVUS supports an increasing reliance on the free market to determine the price of agricultural commodities and the production decisions of farmers, in preference to traditional price support mechanisms.

Agriculture and Trade: U.S. efforts should be directed towards expanding export markets for our agricultural products while minimizing negative effects on developing nations' economies. Consistent with the League's trade position, multilateral trade negotiations should be used to reduce other countries' barriers and/or subsidies protecting their agricultural products.

Farm Credit: Farmers should have access to credit with reasonable terms and conditions. Federally provided farm credit is essential to maintaining the viability of farm operations when the private sector is unable or unwilling to provide the credit farmers need.

Of these policies, the League believes the most essential for the future of agriculture are: encouraging sustainable agriculture; providing research, information and technical assistance to agricultural producers; and increasing reliance on the free market to determine prices.

Significant Dates for the Business of Agriculture

1921	Packers and Stockyards Act (federal act that restricts unfair and uncompetitive packer practices)
1933	Agricultural Adjustment Act (federal depression legislation that intends temporarily to help farmers)
1940's	Federal farm support programs enacted (with production restrictions)
1970's	Increased pressure on farmers to produce more for an international market
	Large producers take over chicken industry
	Escalation in farm income, land prices, and farm debt
	China, India, Brazil start growing more of their own grain
1973	Minnesota enacts the Minnesota Corporation Farm Law and the Alien Ownership Law
1975-1982	Total U.S. farm real-estate debt doubles
1981-1986	Value of U.S. farmland falls more than 40% in 10 midwestern and plains states
	Numerous farms fail, as do many small town banks
1990	Approximately 5% of Minnesotans live on farms
1994	For first time, less than 2 million farms exist in U.S.
1995	Commodity prices hit record highs; milk prices high; U.S. farm exports rapidly expanding; hog prices good
1996	Federal Freedom to Farm enacted; eliminates federal commodity subsidies and production quotas; will be payments to farmers for a number of years to allow them to adjust; dairy compacts allowed
1997	Almost 1/3 of all crops and livestock produced in this year are contracted (generally, a contract between farmer and buyer that crop will be purchased at an agreed-upon price)
1997	Economic crises in Asia
1998	Russia devalues its ruble (8-98)
	Good dairy prices in MN
	Record crops and depressed prices
	Hog prices hit record lows
	Congress approves a $6 billion farm relief bill plus $1 billion in agricultural tax cuts
1999	Brazil devalues its real
	MN legislature approves $70 million farm relief bill (spring)

MINNESOTA FARMING 2000

A Report of the Agriculture Study Committee of the League of Women Voters of Minnesota

INTRODUCTION: CHANGES IN FARMING

It is a truism to say that farming is changing. Farming has been changing for decades. But it is the accelerating pace and the profound nature of the current changes which have caught the attention of the public.

One indicator of change: The percentage of families earning their living from the soil has dropped steadily since the mid-1930s (LWVUS 8). In Minnesota from 1980 to 1995 the number of farms decreased by 20%, with about 5% of state citizens living on farms in the early 1990s (Minnesota, Corporate Farm Task Force 24; von Sternberg A30). "Currently, Minnesota is losing approximately four farms a day. These are mostly small, family-run farms" (MPCA, *Feedlot*).

This decline in small and medium sized farms has been caused by many factors: droughts, large farm loans, poor harvests, over-abundant harvests, low commodity prices, U.S. grain embargoes, restricted opportunities to market crops, increased production in foreign countries, young people unwilling or unable to enter the business, policies and laws that benefit big producers more than small producers, economic advantages of scale.

Nevertheless, economically, agriculture is still very important to Minnesota. The state is seventh in the nation in income, $8.2 billion, derived from agriculture (Minnesota, Dept. of Agriculture. *Producers' Guide* 3). One-third of rural jobs are directly affected by agriculture, while 22% of all state jobs are in some way involved with it (Minnesota, Dept. of Agriculture. *Agricultural Profile* 1). The present study represents an effort to understand the impact of agricultural policies, regulations and practices on the long term health of agriculture and rural communities.

BACKGROUND

What is a farm?

Family farm. Commercial farm. Small Farm. Corporate farm. Hobby farm. Minnesota farms vary greatly, as does the terminology applied to them.

A land holding is considered a "farm" in Minnesota if it has a gross agricultural income, including government payments, of at least $1,000 (Minnesota, Dept. of Agriculture. *Agricultural Profile* 1). The federal government has for statistical purposes divided farms into three groups: 1) large operations, grossing $250,000 or more per year, 2) medium-sized farms, grossing from $100,000 to $249,999 per year, and 3) hobby farms or small commercial farms, grossing $100,000 or less in farm income (U.S., USDA 29).

The National Commission on Small Farms, in the USDA report *A Time to Act*, categorized all farms with gross receipts under $250,000 per year as "small farms." Under that definition small farms comprise 94% of all farms in the U.S., represent 75% of total productive agricultural assets (mostly in land), and account for 41% of total agricultural earnings (U.S., USDA 28).

The "average" Minnesota farm in 1998 contained 361 acres and grossed $119,420, with a $15,754 net return ("Rural" 4A). This portrait is derived from a large number of very small farms with gross incomes from agriculture of $50,000 or less, a significant number of farms with gross incomes up to $250,000 per year, and a small number of farms with gross incomes of $250,000 or more a year. At present there are 81,000 farms in Minnesota, covering, in 1998, 59% of Minnesota's total land.

In the United States as a whole approximately 6% of farms earn almost 60% of agricultural income (U.S., USDA 28). In Minnesota around one fourth of the largest farms are at present responsible for 80% of the state's agricultural output (Runge).

Who is farming?

As of 1992, 90% of Minnesota farms were held in individual or family sole proprietorships, a very high level of independent ownership (Minnesota, Corporate Farm Task Force 22).

In addition, there are family farm corporations, along with authorized farm corporations and partnerships. Some farmers are forming cooperatives--not for grain elevators or electric power as in previous times, but for making ethanol out of corn, processing soybeans into products, canning local vegetables, or raising hogs.

Hobby farms may be operated by a transplanted urban family living on a farm and growing a garden, caring for horses and chickens, maybe working a small field or two. Other small farms may be operated by farmers who live entirely on the income of their farms. Some of these constitute a segment of the rural poor. They may be old or be young parents (or a single parent). Perhaps they live on a reservation and have substandard land. Almost certainly they do not have a cushion of capital.

Some farmers also work off the farm, sometimes driving many miles back and forth to work because their immediate rural area has few off-farm jobs. Somewhere between 40 to 60% of family income for these farms comes from off-farm employment.

As existing farmers grow older and retire, fewer farms are being passed along to the next generation. (The average age of commercial farmers in Minnesota was 50 in 1998 (Minnesota, Dept. of Agriculture 3)). Some young people, of course, want non-farm careers, but it may be difficult for even young people interested in farming to inherit family operations, despite years of "sweat equity," because of high taxes, high prices for land, or their parents' lack of financial security for retirement.

Making a living

Historically, the average farmer's income has been below that of the average city dweller (LWVUS 11). According to a recent study by the Center for Rural Affairs, for the years 1988-95, in the six Midwest states studied (which included Minnesota), one out of three households in rural counties made less than $15,000 a year. In the same region's cities one of five households had equally low incomes ("Rural Areas"1A). It is not unusual for a farmer to gross $200,000 in farm income, but to be left with $15,000 to $18,000 for the family to live on for the year (Hanners 6A).

There is a saying about farmers: They are the only businesspeople who buy retail and sell wholesale. This may apply to other businesses as well, but it is true that farmers need to purchase many things to conduct business--seeds, fertilizer, machinery, agrochemicals, animal feeds, antibiotics--and these items are expensive. They need to borrow to buy machinery or to put in a crop, and they need to finance buildings for their livestock and their grain storage. Yet when it comes time to sell what they produce, they may have to sell it cheaply. For example, in late 1988, it cost on average $100 to raise a 250-pound pig--a pig that sold for $20. A bumper crop of corn can cause the selling price to fall below production costs.

Farming is a risky business, and always has been. There is always the weather to frustrate farmers. If it is too wet, they can't get into the fields to plant, or they get the crop planted, but then it rots in the ground. If it is too cold, the seeds do not germinate, or after they germinate the plants are killed by frost. If the weather is too dry, the crop does not grow, or it grows poorly, and there is not enough hay for the animals. Hail may come and destroy farmers' crops. Disease may hit, such as the wheat scab of the Red River Valley in recent years. Even floods are a possibility.

These days, too, farmers are competing in a global market, and one in which, for the past few years, there has been a combination of excess supply that pushed commodity prices down, and Asian and Russian financial crises that reduced the market for both grain and meat (Zielenziger 5). In the global marketplace some countries can produce goods at a lower price than the United States in part because they impose fewer environmental restrictions. Others, like the European Union countries, place restrictions on imports. Wage disparities from country to country are wide, and are affected by currency exchange rates, differences in labor laws, and local cost of living.

Getting bigger

To raise anything at all, of course, farmers need land, long the largest capital expense in agriculture. There have been pressures to get bigger, to own more land, since at least the end of World War II. At that time, when manufacturers no longer needed to produce war machines in great numbers, they turned to peacetime uses for their industrial capacity, including production of large, specialized farm equipment. This equipment became available at the same time as pesticides and herbicides that made it easier to control insects and weeds, and chemical fertilizers that increased yields. Fossil fuel was also cheap, so it could be used to make these chemical products as well as to power farm vehicles.

Farms were thus able to grow larger, amortize the cost of machinery over a larger crop, and still be worked by the same number of people, or even fewer. In some ways this became a cycle: more land required more machinery, and more machinery needed more land to justify its expense.

This push to get bigger continues today, driven in part by the global economy. As some farmers have taken on more and more land and turned increasingly to mechanization and technology to help them handle the work, they have borrowed money to expand. What happened in the early 1980s provides an example of the risks in so doing. From 1975 to 1982, as farmers attempted to modernize their equipment and add land to their holdings, total U.S. farm real-estate debt doubled. Banks encouraged borrowing, and the price of land shot up. By the early 1980's interest payments on debt exceeded net farm income (Ritchie and Ristau 7).

On Oct. 6, 1979, the Federal Reserve raised the cost of borrowing money, attempting to control inflation. This had immense consequences. From 1981-1986, the value of U.S. farmland fell more than 40% in the Midwest and Plains states. In addition, land, which was being used as collateral on the farm loans, was suddenly not worth what it had

been a short time before, and farmers found themselves vastly overextended in the eyes of their lending institutions. Despite government bailouts and loan forgiveness, numerous farms failed, as did many small town banks.

Renting land enables some farmers to gain the benefits of size without the burden of debt. Frequently, however, competition for land produces high rents, which can be fixed at the beginning of the season--long before anyone knows what the crops will be like or what price crops will bring. As a recent farm study in southwest Minnesota revealed, rural landlords can make more money than can the farmers to whom they rent (Levins, *Swift* 5).

Coping strategies

Many farmers have taken steps to improve their operations. They have studied agriculture at technical colleges and universities, read farm publications, talked with extension agents, made farm financial plans, purchased a computer, put their records on it, and hooked up to the internet to get the most recent farm information. Perhaps they have an accountant and a lawyer. In many cases both husband and wife are deeply involved in the business of the farm.

Factory farming

Some farmers have turned to economies of scale. Beginning in 1970, when Congress, at the urging of agribusiness and pharmaceutical companies, passed legislation excluding farm animals from the Animal Welfare Act, farmers began raising large numbers of chickens or hogs in a small space. These large animal-confinement operations, or factory farms, put as many as 12,000 pigs or 100,000 egg-laying hens together in a single building under controlled conditions (Adcock 1-5).

Industrialized animal agriculture began with chickens and spread to cattle, which no longer went from pasture to slaughter, but were shipped to distant feedlots where they were fenced together by the tens of thousands, feeding intensively in preparation for slaughter. In Minnesota the decade of the 90's saw rapid growth in large animal feedlots, particularly swine facilities. From 1964 to 1997, the number of swine in Minnesota increased from 3.4 million to 5.5 million, while the number of farms decreased from 55,000 to 10, 800 (Minnesota. Office of the Legislative Auditor).

Such practices have yielded a uniform product at low costs for the consumer while maximizing efficiency, productivity and profits for corporate agriculture. The intense confinement of animals, however, is considered by its critics to be both cruel and unhealthy for the animals. Moreover, human health may also be endangered by factory farming practices: Industrial-style farms increase the risk of water pollution, and may yield noxious if not toxic air in their vicinity.

Sustainable farming

Some farmers have turned in another direction. They have attempted to earn at least a partial living with sustainable agricultural techniques--techniques that do not require massive amounts of fertilizer, insecticides, and herbicides, techniques that can result in up to 35 times less soil erosion and contamination runoff from pasture land. Such practices also reduce the use of petroleum and single-purpose machinery.

Sustainable farms generally are diverse operations, with a variety of crops and animals. In a sense, sustainable farmers have gone back to the best of agricultural practices from the first half of the 20th century and continued to add to that knowledge with new techniques, growing perennial forages and grasses, diversifying and rotating crops.

They are raising free-range chickens, small numbers of hogs (perhaps 50) living outdoors, and moderate numbers of dairy cows (maybe 50-60) that are allowed out to pasture when the milking is done. Hoop housing (a special method of housing hogs that involves outdoor shelters and plenty of straw), controlled pasture grazing, and other such "natural" methods are used by these farmers.

It has been established that sustainable operations can be efficient and productive. In recent years, the problem has been finding a profitable market for these operations, because they tend to be small, whereas traditional buyers generally want to buy from large producers. However, there are niches for sustainable farmers, such as organic

products, and animals raised for antibiotic- and hormone-free meat. As consumer demand for these products has increased, for some farmers sustainable methods have proved profitable.

Contract farming

Yet another means of coping with the changing nature of farming has been for farmers to enter into contracts with large companies, contracts in which the farmers agree to grow the companies' chickens or hogs, or to sell fruits, vegetables, and grains to them. It is estimated that nationally about 90% of the chicken industry is under contract, 65-70% of the hogs, about 40% of the fruits and vegetables, and approximately 10% of the grains ("Contracts" 11). Dairy cow operations are not under contract yet, but Gene Hugoson, Minnesota Commissioner of Agriculture, believes a lock-in price will also become common for them in the future (Nistler 18).

The majority of the contracts, called marketing contracts, specify simply that farmers deliver a certain quantity and quality of produce to the buyer on a certain date for a specified price or specified price range, depending on quality. If farmers lock in a price that assures a fair profit and an amount that they can deliver, such contracts can be helpful, giving farmers some assurance of the price they will receive for what they produce. Also having a contract may help farmers borrow money from the bank to produce their crops.

If, however, they have a poor harvest and cannot deliver as much as they have contracted for, they may have to purchase whatever is contracted for from others to satisfy the agreement, perhaps at a significantly higher price than they are going to be paid.

Under another legal agreement, the production contract, farmers raise animals or fowl for a big company. The farmers finance and construct new buildings to the company's specifications, raise livestock by the company's methods, feed and vaccinate by the company's plan (perhaps using the company's feed and medications). Then at a specified time, the chickens, turkeys or hogs are delivered to the buyer for the price in the contract. Sometimes producers are paid a bonus if the quality is particularly high. The buyer does all weighing and grading.

Dick Gladly, chief economist and vice president of public affairs for ConAgra, a large agribusiness based in Omaha, Nebraska, cites the potential advantages of contracts for his company. With production contracts, his company can control the type of animals they are getting, making for a uniform product (lean breeds of hogs, for example), and they know that on any given day they will have enough supply to keep their large packing plants going. They also know how much they will have to pay the farmers and can more easily make the financial calculations necessary to running a successful business (Nixon 12).

For the farmer, a production contract means--for the duration of that contract--an assured buyer and price for the livestock he raises. But it also means dependence on continuing contracts to help pay off loans for building the necessary chicken or hog barns and the risk that the company will withdraw from an area whenever it is a good business decision to do so. In 1997, for example, the Campbell Soup Company closed its chicken processing plant in Worthington, leaving 36 area contractors with half-paid-for barns and no chickens to raise (De Vore 10). A final disadvantage is that under most production contracts the farmers have no rights to question the companies' assessment of quality. There is no governmental oversight.

Rural communities

Both Minnesota policy and public opinion value rural communities and their way of life. The emphasis on preserving family farms is partly historical, stemming from the belief that a nation of small landowners is a healthy society, where families can feed themselves, sell some of their produce to others, and live a good life. The early colonists came from Europe, where large landowners controlled the means of production, and where nearly everyone else was a serf, artisan, small shopkeeper, or household help. Early political leaders saw this idea of wide land ownership as a means of promoting democracy.

Yet many rural communities are going through very hard times. For one thing, out-migration is increasing, an effect evident in the 1980s, when non-metropolitan counties lost an average of 11% of their population; among 18-34 year-olds, the loss was 17% (Amato 39-40). Businesses have been abandoned or moved elsewhere; schools have closed or consolidated. Though some counties showed a little growth in the 90s, the projections are for continued decline

in counties outside the Twin Cities suburban area (Minnesota, Minnesota Planning). It will take some major changes for many rural communities to become good places to live again.

One group less likely to leave the small town is the retirement-age population. Although some older people choose to move to warmer climates or more urban locales, many do not. From 1980 to 1990, this population grew 18 percent in rural areas and only 15 percent in metro areas. It is projected that this group will continue to grow faster in the rural areas than in the metropolitan areas, with a concomitant need for services such as transportation, health care, senior housing, social services, and long-term care. Yet the tax base to provide them is decreasing (Minnesota, Minnesota Planning).

Most rural counties' gross income used to come largely from agricultural sources; today, however, agriculture provides only a small percentage of county income. A study in Swift County provides one example: In 1975 farmers and farm employees earned 30 percent of the total personal income for the county. In 1995 it was 1.63%. (Levins, "Swift" 3). The picture is similar for many counties. Even in good years much of the money farmers receive leaves the county to pay seed companies, landlords, equipment dealers, and chemical companies beyond the borders of the county. As farms become larger, this trend is exacerbated. In 1991 University of Minnesota economists John Chism and Richard Levins found that the percentage of money spent within a twenty-mile radius of the farm declined dramatically with an increase in the size of the operation (Chism 2-3).

Additionally, as large corporations take over the food industry, farmers and middlemen see the disappearance of agricultural institutions: livestock auction barns shut down, local grain elevators closed, local slaughter plants empty. Creameries leave, while small vegetable factories shut their doors. Much of the local market that farmers once depended on vanishes, leaving only a few customers for the farmers' products.

Economist John Ikerd says that "on balance, industrialized livestock operations destroy more jobs than they create. Different studies report estimates of from 1 1/2 to 3 jobs lost for every job created" (Ikerd 4). New industries wishing to come into the rural area--industries like large industrialized farms, food-processing plants, or slaughter houses--are, unfortunately, likely to offer jobs at low wages under poor working conditions. These businesses, desiring numerous low-paid workers, may recruit immigrant workers, who now constitute 10 to 20 percent of the population in some counties. Over 20 languages, for example, are spoken in Pelican Rapids, a community of 1,800 (League of Women Voters of Minnesota 41).

The influx of these immigrant groups into low-paying jobs, combined with the increasing proportion of older citizens, increases the need for educational and social services at the same time as fewer businesses and residents are left to pay for them. In addition, the communities must continue to provide clean water, good roads, and proper garbage and sewage disposal.

The Internet may also have the ability to drain dollars away from local business. Almost anything can be purchased there, even farm products such as animal feed, fertilizers, chemicals, and seeds. On the other hand, technology could be an answer to the problems of rural communities. People could live in country areas and, through the Internet, do their business, take their college courses, and communicate with others. The rural villages could become as global as the largest urban center.

Agriculture and the environment

Agriculture can provide benefits to the environment such as enhanced soil and water quality, green corridors for rivers, habitat for wildlife, and beautiful landscapes. But while many farmers are good environmental stewards, others employ practices which cause, for example, contamination of water and erosion of the soil; in the past many filled in wetlands, a practice which we now understand can have harmful consequences for the entire environment.

The rapid increase in industrial agriculture in Minnesota has focused attention on the relation between farming and the environment, particularly agriculture's effect on water and air. In 1998, as a result, the Minnesota legislature created a task force to prepare a Generic Environmental Impact Statement on Animal Agriculture (final report expected in 2001). A background report on water prepared for this task force provides this assessment:

> In Minnesota, about 60% of the surveyed or monitored rivers and streams, and 17% of the surveyed or monitored lakes were classified as being impaired. Agriculture was identified as the cause of 90% of the impaired river miles, and 64% of the impaired lake areas. It is unknown to what degree various types of agricultural activities . . . caused the impairment. In the Minnesota River basin, it is estimated that from 50-100% of the assessed tributary river miles . . . do not adequately support aquatic life. . . . (University G/5)

The environmental effects of Minnesota agriculture go well beyond our state's borders. Nutrients from farm run-off--from the monoculture farming of corn and soybeans and from animal waste--are linked to the formation of an approximately 7,000 square mile "dead zone" in the Gulf of Mexico, an area of low oxygen where aquatic organisms cannot survive. According to the U.S. Geological survey, 1.7 million tons of nitrogen are flushed down the Mississippi into the Gulf each year, 6-8% coming from Minnesota (Meersman 18).

The increase in factory farms has enormous implications for both water and air quality because it means large concentrations of manure. According to the Minnesota Pollution Control Agency, Minnesota's estimated 45,000 feedlots produce animal wastes that exceed the amount of human waste produced by a population of over 40 million people (MPCA, *General*).
Manure is a valuable resource when applied to the land appropriately. But it can become an environmental poison when it is not carefully controlled. Because manure from large feedlot operations is typically held in lagoons (basins), which can stretch the length of one or more football fields, the surrounding environment is at risk. Lagoons may leach, rupture, overflow. A worker may fail to close a valve properly. Or the lagoon itself may be poorly constructed. There may be illegal dumping of manure. Finally, there are natural occurrences, such as floods or underground sinkholes. A recent study by Iowa State University found that more than one-third of the lagoons studied leaked beyond the amount allowed by state standards (Clean Water Network 12).

It is common management practice to remove liquid manure from a lagoon and spray it onto fields as fertilizer. However, according to a report prepared by the University of Minnesota, "if manure is over-applied, applied at the wrong time in the growth cycle, applied unevenly, allowed to experience losses in storage, handling, and application, then it can degrade water and/or air quality" (University J/6). Putting manure on the land where it cannot be absorbed causes runoff, which creates an extensive and unregulated source of water pollution.

The percentage of contaminated wells in Minnesota affected by animal agriculture is unknown, although it is known that roughly 7% of drinking water wells in Minnesota exceed the Maximum Contaminant Level set by the EPA for nitrates in drinking water (University G/ 7). Minnesota Pollution Control reports that feedlot runoff contains roughly ten times as much phosphorus as untreated domestic waste, and that only one pound of phosphorus produces over 500 pounds of weeds and algae in a lake, which depletes the water of oxygen and suffocates fish and other aquatic life. Manure poses additional problems, as it also carries bacteria, viruses, heavy metals, and other harmful pollutants.

In Minnesota, animal waste remains one of the most prevalent causes of fish kills. In June 1997, 100,000 gallons of raw manure from a hog operation in Renville County spilled into a nearby creek, killing nearly 605,000 fish (Minnesota. Dept. of Natural Resources). (The farmer whose facilities and/or procedures failed was punished by jail and a fine. The company for which he was growing the hogs, one of the nation's largest pork producers, was deemed to have no legal responsibility for the accident (De Vore 9)). Manure or feedlot pollution was responsible for ten of the 12 agriculture-related fish kills from 1995 through 1998, and led to more fish kills than either industrial or municipal pollution (Minnesota. Dept. of Natural Resources).

Agriculture's effect on air quality depends to a great extent on the area and concentration of manure. The noxious odor from large concentrations of manure is well described in the following account of a corporate hog operation in Oklahoma:

> It's the ever present stench--the overpowering smell from Seaboard's 40,000 hogs closely confined in 44 metal buildings, where exhaust fans continuously pump out tons of pungent ammonia, mixed with tons of grain dust and fecal matter, scented with the noxious odor of hydrogen sulfide... (Barlett, 58).

Air emissions from feedlots also can be dangerous to health--of the animals, workers, and rural neighbors. Recently the Minnesota Department of Health linked the results of air monitoring for hydrogen sulfide at a Minnesota farm to physiological symptoms, and concluded that the monitored levels were high enough to pose a potential threat to human health (Minnesota, Dept. of Health). Twenty to 30 percent of workers in large-scale swine facilities are known to have respiratory problems (Thu 12). Exposure to high ammonia concentrations can be fatal to humans. In 1997 a link was established between waste from poultry farms in Maryland and Virginia and outbreaks of *Pfiesteria piscicida*, a toxic microbe that kills fish and causes skin irritation, short-term memory loss, and other cognitive problems for humans exposed to it. In 1993 a pathogen, crystosporidium, in Milwaukee's water made 400,000 people sick and led to the deaths of more than 100 people. The suspected source: dairy manure (Duskin 14). (See also *Danger on Tap,* and Satchell, "The Cell from Hell.")

Airborne contaminants from animal agriculture, including gases, odor, dust, microbes, and insects, may be produced or emitted inside and near animal production facilities and can also drift when waste products are applied on the land. The environmental and health effects of these airborne contaminants are only beginning to be investigated. Long-term impacts on ecological systems and people are not known (University H/1).

Agriculture and food

Pesticides, antibiotics, growth hormones, and food-borne pathogens

We spend about 11% of our income for food at present, an amount significantly lower than in any other part of the industrialized world. Japan spends approximately 18%, Australia, 14.6%, and France about 15% (Minnesota Farm Bureau 1). But along with this productive efficiency come some potential risks to human health. These stem from pesticides getting into food and water, from the use of antibiotics in livestock, from administration of growth hormones to livestock, from the risk of food-borne pathogens, and perhaps from genetically modified organisms.

Ten years ago, the League of Women Voters of the United States published a Citizens Guide entitled *America's Growing Dilemma: Pesticides in Food and Water.* That study pointed out the fragmented authority of federal regulatory agencies, and questioned the effectiveness of their processes for setting tolerances, assessing risks, and enforcing regulations. To a great extent these concerns remain.

Approximately 40% of all antibiotics used in the U.S. are used in livestock. Most are used in sub-therapeutic doses to promote rapid growth. The remainder are used to prevent or treat diseases, which can spread rapidly among crowded and stressed animals.

The Institute of Medicine of the National Academy of Sciences began to question this practice in 1989. Evidence has mounted throughout the nineties that the routine use of antibiotics in livestock may diminish the drugs' power to cure infections in people, as resistant bacteria are passed on from the meat of animals to people who eat it. Health authorities, including the World Health Organization, the U.S. Centers for Disease Control and Prevention, and the National Academy of Sciences have called for banning sub-therapeutic uses of certain antibiotics with animals, as European countries have already done. The U. S. Food and Drug Administration has now begun a major revision of its guidelines regarding the use in this country of antibiotics for animals.

A further safety concern in industrialized animal agriculture is the administering of growth hormones, because long-term exposure to high residues of natural and synthetic hormones in meat products may pose risk of breast and reproductive cancers in humans (Gabler 38). Finally, food-borne pathogens transmitted from animals to humans--salmonella in poultry, eggs and meat; *campylobacter* in chicken; *E.coli* in hamburger; and *listeria* in meat and dairy products--all can result from the cramped confinement and feed contamination associated with factory farming.

Genetically modified organisms

The use in agriculture of genetically engineered, or genetically modified (GM), organisms has stirred much debate. In genetic engineering, small fragments of genetic material are transferred from one (usually unrelated) organism to another for the purpose of adding a new trait to the recipient organism. The resulting organism is called "transgenic."

All crops are in fact genetically different from their wild predecessors, through long periods of natural selection, domestication, and controlled breeding (Transgenic). Genetic engineering differs, however, from conventional plant breeding (hybridization and crop selection) in several ways: 1) there is genetic exchange between organisms that would not occur in nature; 2) the genetic engineering process introduces other foreign material (bacteria and viruses necessary to ensure successful transfer); 3) genetically engineered plants can be developed more rapidly and with more precision than in traditional breeding programs.

GM crops were first grown commercially in the mid-1990s. By 1999, almost 100 million acres world wide had been planted, the largest acreages being in the U.S., Argentina and Canada. In the United States in 1998 65% of cotton, 57% of soybeans, and 38% of corn were GM crops, followed by canola and potatoes. The U.S. and/or Canada also grow GM flax, squash, papaya and tomatoes. GM crops currently in the field-testing stage include alfalfa, apples, cucumbers, melons, rice, strawberries, sunflowers, walnuts and wheat. In Minnesota, test crops include corn, soybeans, canola, potatoes, sugar beets, wheat (Barrett 2-3).

Most GM crops have been developed for agronomic (ease of growing) purposes: about two-thirds for tolerance to herbicides such as Roundup and one-third for insect and virus resistance (Barrett 2-3). A small number of crops have been modified for quality traits such as altered oil production in canola or delayed ripening in tomatoes. Crops containing vaccines and vitamin supplements are in the wings. For example, rice is being genetically modified to include beta carotene, a precursor of Vitamin A; such "golden rice" may help millions in developing countries whose diets are based on rice and are now deficient in Vitamin A (a major cause of blindness in children (Transgenic).

Those with doubts about genetically modified crops urge caution and more long-term study, particularly carefully controlled field study. They note that the evidence of benefits--increased yields, decreased use of chemicals, increased farmer profits--is inconclusive. USDA data from 1996-98 showed positive results in some cases and negative results in others (Barrett 2-3). Opponents also fear health problems--particularly allergic reactions--resulting from unwittingly encountering an allergen in a GM food. A project to enhance the protein in soybeans with a protein gene from brazil nuts was stopped when testing showed that people allergic to brazil nuts also reacted to the altered soybeans (Transgenic). And, opponents say, GM foods may be addressing the wrong problem. The real problem today, according to Catherine Bertini, Executive Director of the U. N. World Food Program, is not a crisis of food supply, it is a crisis of poverty, inequality and lack of access (International).

Of greater concern are potential environmental effects. Once new genes are released into the environment, there is no way to take them back. Gene transfer through pollen from GM crops to related weeds has occurred from, for example, GM canola to wild mustard, and from GM wheat to jointed goatgrass (Transgenic). Environmental scientists and farmers have identified additional concerns including eventual insect resistance; possible harm to non-target insects such as ladybugs and monarch butterfly larvae; harm to beneficial soil organisms; and the development of new plant pathogens.

Organic farmers, among others, worry about genetic engineering's use of *bacillus thuringiensis* (Bt). Bt is a self-limiting, organically approved, non-chemical alternative for insect control. Used only as necessary, Bt spray has been a very important resource of last resort for organic farmers. Through GM technology, Bt genes are now being inserted in crops such as corn, cotton and potatoes, transferring the insecticidal trait into every cell of the plant and at much higher levels than the spray. Future plans include many other crops. Such heavy use of Bt is likely to accelerate resistance in insects, thereby causing a loss of major proportion to organic farmers. Organic farmers stand to lose as well through accidental cross-pollination. Farmers who grow and market non-GM corn and soybeans lose their market when contamination from neighboring GM crops occurs.

Finally, GM technology gives rise to food security concerns among some people, in that almost all GM crops are owned by private sector corporations. Patents on GM technologies by seed and chemical companies have placed the control of crop production into very few hands. Recent corporation mergers have combined seed, chemical, processing, and pharmaceutical companies into powerful entities.

The proponents of genetic modification make a number of arguments. Foremost is that transgenic crops have the potential to feed the world without requiring additional land (such as rain forests) to be opened up to agriculture.

Currently developed GM crops, they point out, are good for the environment, in that they use a lower level of pesticides and herbicides; transgenic crops under development will increase the productivity of degraded soils. Farmers can use a variety of planting strategies to mitigate potential negative effects like cross-pollination and reduction milkweed on which monarch larvae feed. The public has been eating transgenic soy and corn products for some time and as yet no adverse health effects have been reported (Transgenic). Finally, proponents point out that the U.S. competitive position in the world as a major exporter of food products and as a leader in the biotech industry will be enhanced.

Agribusiness

In the U.S. the food business, like virtually every other industry from finance and media to computers and auto making, is increasingly dominated by a limited number of large companies. William D. Heffernan and his colleagues at the University of Missouri keep track of these concentrations. As of January 1999, four major businesses controlled 79% of the U.S. beef slaughter: IBP, ConAgra, Cargill, National Beef (16). Seventy-five percent of pork slaughter is controlled by six businesses: Smithfield, IBP, ConAgra, Cargill, Farmland, and Hormel (16). In flour milling, there are four big producers: ADM Milling Company, ConAgra, Cargill Food Flour Milling, and Cereal Food Processors, Inc. (17). (In each case the companies have been named from largest to smallest.)

Big companies also own elevators, which buy farmers' crops. Cargill is first, followed by ADM, Continental Grain, and then Bunge. According to Heffernan, four firms control processing of at least 40% of all the major commodities produced in the Midwest (2). There is concern, therefore, that not only do these companies have vast segments of individual markets under their control--produce the most chickens, slaughter the most beef cows, mill the most flour--but they also are powerful in many areas, not just one or two. They own seed corn, produce fertilizer, have interests in pharmaceutical companies, prepare food products.

These companies also aid their farm customers through marketing and risk management programs, research into techniques for greatest profitability, and development of specialty grain markets. And they earn large profits for their shareholders and private owners. According to Heffernan, the food sector is second only to the pharmaceutical sector in producing returns on investments (U.S., USDA 72). Richard Levins, an agricultural economist, comments that it is common for these large companies to earn 17-20% on their equity (their net worth) each year. In comparison, farmers during the 1990s earned 2.39% on their investment of land, machinery, livestock, etc. (Food 9).

Nevertheless, one might ask whether this field of giants is good for U. S. consumers. Heffernan says that if four or fewer firms control 40% or more of a sector of a market, healthy competition is no longer present (1). This concentration has certainly happened in agriculture, as it has in many other economic sectors, even though over the years the U.S. has enacted various laws that are designed to allow healthy competition in the marketplace; two of these most often called upon in agricultural matters are the Packers and Stockyards Act and the Sherman Anti-trust Act. Critics of the increasing concentration in our food system charge that these laws are being ignored at both federal and state levels.

Getting big is one thing that helps a company survive in the midst of other giants; mergers and acquisitions have become a familiar feature of contemporary life. The small, independent corner grocery store is almost gone, as is the independent hardware store. Kraft Foods is now a unit of Philip Morris. Such large companies require modern transportation, communication, record keeping, and accumulation of capital. They also need a global market to make a large company possible and profitable.

Mid-size farmers need global markets as well. Since this state is blessed with fertile soil and favorable climate along with skilled farmers, Minnesota produces much more than its citizens consume, and in fact today exports one-third of the wheat, one-third of the corn, and half of the soybeans grown in the state. The growing economies and populations of, particularly, Asia seem attractive markets for the these products. (Currently, in order of size, our five largest markets are Japan, Canada, Mexico, Taiwan, and Korea.) Minnesota food and agricultural exports total $12 billion (28% of our total agricultural production) and support more than 44,000 jobs (Minnesota, Dept. of Agriculture. *Agricultural Profile;* Schommer).

The global marketplace, however, can be challenging. While there are new markets to reach with a product, the competition may be intense, not only from other U.S. corporations, but also from corporations in Brazil, Argentina, France, Mexico. Risks are equally dramatic. Markets that once were good can quickly and unexpectedly dry up. A whole group of economies can go into a slump, as happened in Asia in the 90s; other countries can not only improve their ability to meet their own needs, but increase their exports, as Brazil is doing with soybeans (Zielenziger 5). The U.S. government can embargo a product for political reasons, as it did with wheat sales to Russia. Sales are also influenced by the trade barriers that still exist in the world market. Size can provide the necessary flexibility and capital to weather such sudden changes; where size does not avail, government may need to step in.

THE ROLE OF GOVERNMENT IN AGRICULTURE

Because a country's people must have food, and because farming is so risky a business, modern nations have paid particular attention to their agriculture and have taken steps to insure that it would survive. In the U.S. there have been direct payments to farmers, public research in agriculture at the land-grant universities, extension service help for individual farmers and their families, construction of roads and waterways to move food, special insurance programs for farmers, and other programs.

Besides ensuring that the United States has had enough food and Minnesota has retained its healthy agricultural economy, there have been additional goals. One has been to preserve medium-sized family farms, as indicated by the preamble to the Corporate Farm Law, enacted in 1851 by the Territory of Minnesota and revised frequently over the years: "to encourage and protect the family farm as a basic economic unit, to insure it as the most socially desirable mode of agricultural production, and to enhance and promote the stability and well-being of rural society in Minnesota and the nuclear family." This preamble is retained in the current version of the law.

In addition, the U.S. and, to a lesser degree, Minnesota have been willing to subsidize agriculture because of the importance of producing great volumes to sell abroad. A sufficient number of farmers producing bumper crops has led to low prices, allowing the U.S. to be competitive in the global marketplace. Foreign sales have been good for the U.S. as well as for farmers, who have earned 30-40% of their income in recent years from exports (Strauss 2B). Of course Minnesota, being a major agricultural state, has wanted its share of this trading prosperity.

Federal government assistance: a brief history

While weather, new technology, and market conditions are always important to farming, the federal government has also significantly influenced agriculture's fate since the depression of the 1930's. The 1933 Agricultural Adjustment Act, enacted during President Franklin Roosevelt's administration, was intended to assist farmers only during the difficult Depression period. But federal assistance has continued to this day, assistance that has always been controversial and almost always expensive.

The goals of this legislation were to increase farm income, ensure a stable and cheap national food supply, and conserve farmland. Non-recourse government loans--loans that allowed farmers to turn these crops over to the federal government if the market price was lower than the loan rate--were introduced on a limited number of crops (among them corn, wheat, rice, and cotton), providing in effect a national floor below which prices would not fall. The federal government thus acquired, stored, and eventually distributed (often to food shelves and school lunch programs) large supplies of some commodities. Control requirements--limits on what individual farmers could grow under the program--were also enacted.

This federal help was welcome relief to farmers, enabling many to remain in farming. Ironically, though, since government help was based on acreages and production, much of the aid went to the largest and most successful farmers, who were then able to buy new machinery, purchase neighbors' land, and become even more productive and more wealthy. Another effect (which continues today) was that farmers were in this way encouraged to continue growing what was subsidized, not necessarily what the market needed.

Republicans, as a group, were from the beginning extremely unhappy with Roosevelt's farm program, believing that market forces ought to be allowed to work in agriculture just as in other businesses and that the nation ought not to

be supporting farmers at the expense of the taxpayers. After World War II, when Republicans gained control of the presidency under President Dwight Eisenhower (1953-61), his secretary of agriculture, Ezra Taft Benson, retired some programs and initiated policies to encourage farmers to increase production for a world market. The government loan rate for farmers (which created the floor for domestic farm prices) was dramatically lowered, and getting bigger was encouraged. Much of the farm support program, however, was left intact.

National policy continued to encourage increased production all through the 1970s and '80s, promoting international sales, which were particularly good for the U.S. balance of payments. U.S. agriculture products enjoyed strong demand abroad during these years, partly caused by a weak dollar. Earl Butz, secretary of agriculture during the Nixon administration, advised farmers to "get big or get out." Farm income, land prices, and farm debt all escalated. Inflation ran rampant.

At the same time (1970's), Congress created a two-tier farm program, which still had a non-recourse loan program (but rates were low). In addition, Congress set a target price for specific crops and paid farmers deficiency payments (direct income supplements) when the market was below target price. Finally, in 1985 President Ronald Reagan signed a bill that basically kept the old system, although it sharply lowered the federal loan rate, and at the same time increased deficiency payments to farmers. This kept agricultural products inexpensive for the export market and the consumer. The cost to taxpayers soared, reaching $26 billion in 1986 (LWVUSEF 5).

The following year, 1986, the Tax Reform Bill became law. Previously, non-farmers had acquired agricultural land with large incomes as a tax shelter. Tax reform repealed or reduced the tax advantages, thereby freeing up agricultural land for purchase by farmers.

The most recent major farm legislation constituted a dramatic change. Called the Freedom to Farm Act, it went into effect in 1996, eliminating federal commodity subsidies and production quotas. It called for continued payments to farmers for seven years, which would allow them to adjust to free markets. But in 1997 an economic crisis shook Asia, and it could no longer import agricultural products, such as U.S. pork, as it had in previous years. In August 1998 Russia devalued its *ruble*, and could no longer afford U. S. grain. In addition to all of this, much of the U.S. had abundant crops in 1998, the surplus leading to depressed prices. Some farmers chose to store their grain, hoping for better markets later. Hog prices hit record lows.

In response to all of this pain, Congress approved, and President Bill Clinton signed, a special $6 billion farm relief bill, plus $1 billion in agricultural tax cuts. In total, the federal government paid farmers and owners of farmland about $12.1 billion in 1998. Unfortunately, 1999 proved to be another hard year. This time Brazil devalued its *real*, making grain purchases by that country unlikely; the Asian and Russian markets were still down; the harvests were again abundant; and prices again low. Hogs, once a reliable source of income, remained rock bottom, due in good measure to overproduction resulting from factory farming operations

The harvest of 1999 was generally a good one in the Midwest, so there was no shortage of food for sale. In addition, numerous farmers were still holding grain from the year before, and a continuing large volume of hogs was ready for market. Consequently prices were very low. Again the federal government came to farmers' aid with nearly $9 billion in additional payments, for a total of $22.7 billion in farm aid, 40% of farmers' net cash income for the year (Hershey). (In the spring of 1999, the Minnesota legislature also approved $70 million in farm relief.)

State policy and programs

Minnesota agricultural policy is largely determined by five groups. First, there is the legislature, primarily through the House and Senate Agriculture and Rural Development committees. In the executive branch are two agencies, the Minnesota Pollution Control Agency and the Department of Agriculture. Both have regulatory powers; the Department of Agriculture, however, is charged with both regulating and promoting agriculture. The University of Minnesota College of Agricultural, Food and Environmental Sciences, as well as the Minnesota Extension Service, influence the direction of policy through research and education. Finally, farm organizations like the Farm Bureau and the Farmers Union, as well as agribusiness groups such as Minnesota Pork Producers and the Minnesota Agri-Growth Council develop policy proposals and lobby the legislature.

The Minnesota Department of Agriculture and the University of Minnesota are strong proponents of biotechnology in agriculture and affirm its existing and potential benefits to the state's economy. According to Agriculture Commissioner Gene Hugosdn, "A lot of what we're doing as a state government is trying to assure and reassure an often skeptical, uneducated and not-necessarily-wanting-to-be-informed public that biotechnology is safe" (*Star Tribune*). And according to Dean Charles Muscoplat of the University of Minnesota College of Agriculture, Food and Environmental Science, Minnesota should increase its public investment in food-related biotechnology to prepare for the intensity of global competition and for its role in feeding the world.

Minnesota also has a variety of programs to provide instruction and assistance for farmers. The Department's Organic Certification Cost-Share Program assists with costs of certifying crops as "organic." The Energy and Sustainable Agriculture Program, under the Minnesota Department of Agriculture, publishes a *Greenbook* each year to assist farmers in using sustainable agricultural techniques. It sponsors forums, information exchanges, and other educational programs, and offers grants for trials of innovative methods. Some farmers and interested others believe that this program, the only section of the Department of Agriculture specifically designed for smaller, environmentally conscious farmers, is significantly underfunded.

The state also helps with certain marketing efforts. One program that Agriculture Commissioner Hugoson promotes is designed to help specialty farmers with marketing. The state will certify that farm products are what the farmers say they are--in terms of fertilizer restrictions, medicines in feed, insecticides, and so forth. A noteworthy, but small, program is "Minnesota Grown." It was begun in the mid-1980's in order to promote buying Minnesota products and to help farmers sell their products directly to the consumer. A *"Minnesota Grown" Directory for Fresh Produce* lists approximately 150 growers. Currently there are 600 licensed users of the "Minnesota Grown" logo.

The Minnesota Department of Agriculture has recently reinstated state inspection of small slaughter and processing facilities, which allows meat producers to sell their own meat directly to customers if they use one of the facilities inspected by the state. This program now includes 28 plants, processing in total nearly 300,000 pounds of meat a month. Previously meat for any kind of sale had to go through a USDA-inspected large operation, and large operations do not do small orders.

Regulation of agriculture

Minnesota farm laws

For 150 years lawmakers in Minnesota have been making laws about farmland and farming. Seven years before Minnesota became a state, a statute was adopted that said, "Any alien may acquire and hold lands...and he may convey, mortgage, and devise the same...as if such alien were a native citizen of this territory or of the United States" (Minnesota. Corporate. Appendix D). Between then and 1991 the legislature dealt with land ownership over 100 times (Rankin 1).

The reason Minnesota has such a large percentage of family farms is precisely because the Minnesota legislature has passed laws to control ownership. To keep foreign money from coming in to buy up Minnesota farmland the Alien Ownership Law was enacted in 1973; in 1977 and 1981 restrictions were tightened. The Corporate Farm Law was amended in 1973 to limit corporate leasing of land; it was amended again in 1975 to require that a majority of shareholders in an authorized farm corporation live on the farm or be actively engaged in farming. Ten years later, an amendment to the law was passed that set maximum acreage limits--generally 1500 acres of farmland (Rankin 3-4).

The law has been loosened in various ways as well. In 1978, poultry raising was defined to be a non-farm activity, which meant that the law did not apply to corporations in the poultry business (Rankin 5). Another amendment passed in 1994 broadened the law to allow non-family corporations, composed mainly of farmers, to raise hogs in Minnesota.

The present Corporate Farm Law allows two major categories of agricultural corporations--family and authorized--but places strict restrictions on them. Family farm corporations must be established for the purpose of farming, the majority of shareholders must be persons or the spouses of persons related to each other within the third degree of kindred (third cousins, for example), and at least one shareholder must live on the farm or at least be actively operating the farm.

The authorized farm corporation has broader requirements, but here too local investment and farmer dominance is required. Within this category are two different options. One option allows no more than five shareholders (all of whom must be "natural persons"), requires that 51% of the shareholders must reside on farmland or be actively engaged in agriculture, and prohibits the corporation from owning more than 1,500 acres of land. The other option, enacted in 1994 in response to farmers who wished to pool assets and raise large numbers of hogs, applies only to those raising livestock other than dairy cattle. There can be any number of shareholders, but at least 51% of shares must be held by those living on the farm or actively engaged in farming, 75% of the financial control must be held by Minnesota farmers, and the corporation can own no more than 1,500 acres of agricultural land.

A third category under the Corporate Farm Law is the breeding stock exemption, where farmers raise animals for breeding, not for meat. Finally, a limited number of corporate ownerships of land either were grandfathered in by the 1973 legislation or have been granted for very special uses since. Poultry raising does not fall under this law, so corporate ownership is allowed there.

Limited liability companies are now allowed in Minnesota agriculture under legislation passed during the 2000 session. Limited liability means what it says: Investors are not liable for company damages in an amount greater than that which the investor has invested. Two types of companies, a family farm limited liability company and an authorized farm limited liability company, were written into the law. In both cases 49% of the investors can be either non-family (family limited liability company) or non-farmer (in the authorized farm limited liability company) (Sobociaski 10). This law makes it easier to raise investor money for large-scale animal operations, where the potential for a costly environmental accident is always present.

The 2000 session of the legislature passed a bill regulating contracts between agricultural producers and buyers. Modeled after the procedure used with the insurance industry in Minnesota, it set minimum standards: The contracts must tell the farmers what risks they run, and be clearly written. Farmers must have up to three days to review contracts, see attorneys, and change their mind. It is now illegal to require a farmer to keep secret the price received under a contract. A court could later change the terms of the contract if it was not clear and readable and the producer was harmed. A Minnesota Department of Agriculture publication, *A Producer's Guide to Production Contracts*, has recently become available.

Environmental regulation

Congress has largely turned to the states to regulate industrial agriculture, although pollution does not respect state lines, and only a national solution can prevent "pollution shopping"--the attempt by businesses to locate in states with more lenient regulations. What federal legislation exists, like the Clean Water Act and the Clean Air Act, is often inadequate with respect to agriculture. The Clean Water Act, for example, does not adequately address non-point source pollution (polluted runoff whose sources are diffuse and do not come from a pipe or other conduit), of which agriculture is the biggest contributor. Federal (and state) environmental regulations fail to prevent factory farms from locating in environmentally sensitive areas, such as floodplains and karst areas. The U.S. Clean Air Act has not been effectively used to regulate factory farm air pollution. There is currently no national tracking system for manure spills, fish kills (those often go unreported, so the causes remain unknown), or *pfiesteria* events associated with confined-animal feeding operations ("Spilling Swill" 3).

It often seems that taxpayer dollars are used to first subsidize industrialized farms and then to clean up after them. (See, for example, Adcock.) Many citizens advocate making corporations responsible for the pollution they are causing, and are calling for a reclassification of big farms from agricultural to industrial.

Legislation was proposed in Minnesota in 1998 that would have prevented the construction or expansion of large animal operations for a two-year period so that the issues involved could be studied. It was, however, defeated. The legislature chose instead to charge the Environmental Quality Board with preparing a Generic Environmental Impact Statement on animal agriculture to be completed in 2001. A task force has been working on the project since 1998.

Some states have taken action. For example, there is now a moratorium on building new corporate hog farms in North Carolina. Other states have limited or banned new factory farms. In Minnesota there has been intense controversy over large animal feedlot operations, as well as heavy criticism of the regulatory body, the Minnesota Pollution Control Agency. (See, for example, Minnesota Office of the Legislative Auditor report.) Some Minnesota counties are taking things into their own hands, adopting moratoria on new factory farm construction and developing and enforcing regulations.

Regulation of genetically modified foods

Three federal agencies review different components of genetically modified organisms (GMO). The Department of Agriculture (USDA) regulates potential plant pests and the safety of plants; the Environmental Protection Agency (EPA) regulates GM microorganisms and pesticides; and the Food and Drug Administration (FDA) regulates the safety of GMOs intended for human and animal food.

The USDA requires breeders to conduct field tests for several years to assure the accuracy of the result and the nutritional level and safety of the plant. In 1992 the FDA established the policy that GM foods did not require regulation and labeling unless they contained substances with a "significantly different" structure, function or quantity than substances in non-GM foods. This position is supported by The National Academy of Sciences, and the Food and Agricultural Organization of the United Nations (Schmickle). The FDA has determined to date that most transgenic crops are not "significantly different" and therefore do not require pre-market testing or approval. Until very recently developers of GM foods were encouraged to consult with the agency on safety and regulatory questions on a voluntary basis. That policy has now been changed to require companies to give advance notice and submit safety data before bringing new foods to market.

The Science and Environmental Health Network and the Institute for Agriculture and Trade Policy, on the other hand, believe that the principles used by U.S. regulatory agencies are inadequate to evaluate potential hazards. They say this for a number of reasons. First, they believe the United States' fragmented regulatory system is itself inadequate to deal with the complexity of genetically modified organisms. This fragmentation also makes public awareness and participation difficult. Moreover, in the U.S. the developer of the product, who will benefit financially from its sale, does pre-market testing. The full results of these tests are treated as confidential business information, and thus are not available to the public. No independent testing is done to verify the results (Barrett).

The State of Minnesota, through its Department of Agriculture, has its own review process for proposed GM crop test sites. That process mirrors the federal permitting and review process. The USDA sends all pertinent information regarding a proposed test crop to the state, where it is reviewed from the perspective of the state's interest. Then public notice is given, providing citizens an opportunity to comment. Modifications may be requested if the proposal does not meet the criteria established. The state must also approve any commercial use of GM products, such as the sale of seeds.

The one risk in GM foods that most seem to agree on is that such foods could contain unsuspected allergens. The National Academy of Sciences report, for example, advocates better methods for identifying things that could trigger allergic reactions in some people (Schmickle). One method of accomplishing this might be simply to label all GM foods as "genetically modified."

A coalition of 60 consumer and environmental groups, along with at least 49 members of Congress, has called for such labeling (*Organic* 1). Advocates of labeling believe it is in keeping with U.S. case law and precedent on the people's "right to know" about what they eat (Midwest). Labeling would bring the U.S. in step with Europe, Switzerland, Japan, Korea, Australia, and New Zealand, where such labeling is mandatory.

The food industry, however, says that labeling would be burdensome and might arouse irrational fears in consumers. Moreover, because of the virtual omnipresence of GM plants and by-products, almost everything would have to be labeled. An alternative might be to label foods that do not use GM technology, as we do now with organic foods.

ISSUES

Government cannot do anything about hail or drought; the global economy is not especially controllable; industrialized farming is here to stay. Consumers in the United States have, for the most part, inexpensive food, wide choices, and few shortages. Many farmers are hurting. Others have specialty markets, good contracts, little or no debt, vast fields, a skill at locking in prices on the grain exchanges for their traditional crops, good luck, and government payments when they need them.

But it is not hard to see that certain aspects of the current agriculture scene pose serious questions. The big one is this: To what extent should the state make special efforts to keep medium-sized commercial farms viable, those farms that are trying to make farming their main source of income, but that do not have the volume of sales to make a decent profit in times of low prices and low profit margins for the major crops and animals?

Do we say that Minnesota should not be trying to save the family farm, that we in the United States believe in the free market system, and part of that belief is that everyone should have an opportunity to make a living, but no one warrants special protection? Do we agree that large businesses dominate most areas of our economy and argue that there is no good reason why farming should be rescued from this global trend?

Or do we believe that the production of food is fundamentally different from other businesses and therefore should be treated differently? Do we agree that medium-sized, commercial farms are a valuable part of Minnesota's economy and society, that such farms are good for the environment, good for the countryside, good for small towns, people and animals--and should therefore be assisted to remain in business? Should the state find ways to encourage young people to become owner-operators of family farms?

If small and medium-sized farms are going to be assisted, what form should such assistance take? Here are some possibilities. Add to the educational workshops, grants, loans, technical advisors, and publications currently available through the University of Minnesota, the Minnesota Department of Agriculture to assist farmers to improve their methods of farming. Find new crops to grow and markets for these crops, as was done in the 1960s with soybeans. Vigorously promote cooperative processing ventures to enable farmers and/or rural communities to add value to crops before sending them on. Mandate that state institutions--colleges, state government dining areas, hospitals and prisons--use state-grown vegetables and fruits whenever possible. Promote "Minnesota grown" to grocery stores and restaurants.

Should the state be assisting rural communities? Is farming the only or best means of support for rural communities? The Ventura administration is strongly advocating good computer access in the rural areas, believing this to be vital if businesses and professionals are going to the enticed to the country. Roads, affordable housing, good schools, state-of-the-art health care also help sell the rural community. Government has programs in these areas. Does more need to be done?

Clearly, another big issue is the environment. Should farms be required to treat their animal wastes in the same fashion as cities must treat human waste before it goes back to the environment? Should farmers going into large-scale animal raising (or the businesses that contract with them) have to purchase a bond, so if there is an accident and significant damage occurs, someone other than the state (the taxpayer) is responsible for fixing the problem? Should there be air and water standards that factory farms must meet in order to stay in business?

Should the government assist the small but growing number of farmers who maintain sustainable agricultural practices such as rotational grazing, cover crops, crop rotation? Should government provide economic incentives to use sustainable techniques?

We know that farms also improve the environment. For example, one study shows that small U.S. farmers allow 17% of their areas to be woodlands (compared to 5% on large farms) and maintain twice as much of their land in

soil improvement uses, such as cover crops and green manures (Rosset 8). Should small farms therefore be favored in government policies? Should we provide incentives--such as Reinvest in Minnesota (RIM), which protects natural and sensitive areas on both public and private land by permanent easements that prevent set-aside wild areas from reverting to agriculture--to set aside more land than at present?

Some consumers are concerned about food safety and apprehensive both about the chemicals used to grow fruits and vegetables and the genetically modified foods that have started to arrive on the market. Should Minnesota do more to promote organically grown foods? Should Minnesota mandate appropriate labeling of foods so that the consumers know what they are purchasing? Is this an action that could be effective on a state level?

An increasing number of agriculture research grants come from agribusiness, which naturally leans towards projects that are commercially viable for large corporations. Does agribusiness unduly influence agricultural research? Should the state fund more research that is helpful for small and medium-sized farms and that is focused on sustainable agriculture?

The global marketplace raises other issues. Could the state promote Minnesota exports even more than it does now? Is there anything the state can do to cushion the effects on farmers of swift changes in the global economy?

Finally, what, if anything, can and should Minnesota do about the large corporations that are dominating markets? Should we push for stronger enforcement of federal anti-trust and fair marketing legislation, which the Minnesota attorney general could do? Is the state level the right place for such action?

The answers to these questions will direct public agricultural policy in Minnesota. Citizens need to understand the issues and make their preferences known.

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Speakers

Agricultural Committee

Willis Anthony, Farmer, St. Peter MN; former Professor in Applied Economics, University of Minnesota

Cornelia Butler Flora, Senior Fellow in Agricultural Systems, University of Minnesota

Gene Hugoson, Minnesota Commissioner of Agriculture

Richard Levins, Department of Applied Economics, University of Minnesota

William Nelson, Director of Cooperative Develoment, Centex Harvest States

John Peck, Doctoral Candidate in Agricultural Economics, University of Wisconsin

Mark Ritchie, Institute for Agriculture and Trade Policy

C. Ford Runge, Professor of Economics and Law, University of Minnesota

Dave Serfling, Farmer, Preston MN; member, Land Stewardship Project

Linda Thrane, Departmental Vice President, Cargill

Members of League of Women Voters of Minnesota Agriculture Study Committee

Anne Borgen, LWV Golden Valley

Brian Karlsson-Barnes, LWV Northfield

Nancy Gundersen, LWV St. Cloud Area

Stephanie Henricksen, LWV Northfield

Deanna Lederer, LWV St. Cloud Area

Helen Palmer, LWV Minneapolis

Mary Phillips, LWV Owatonna

JoAnne Rohricht, LWV St. Cloud Area

Gertrude Ulrich, LWV Richfield

Barbara Vaile, LWV Northfield

DRAFT CONSENSUS QUESTIONS ON AGRICULTURE**

1. Do you agree with the goals of state agricultural policy as stated in the Minnesota Corporate Farm Law preamble, as follows: "to establish the family farm as the most socially desirable mode of agricultural production, contributing to the stability of rural communities?"

___agree ___disagree ___no consensus

2. Should the state of Minnesota provide the following (check if yes):

a__ support for all sizes of farms with emphasis on sustainability
b__ research directed to moderate-sized farm operations
c__ support for beginning farmers
d__ support of innovative practices and crops for moderate-sized farms
e__ crisis supports based on need

3. Industrialized agriculture and consolidation of the industry are on the rise. Check whether the state should or should not

	should	should not	no concensus
a favor agribusiness through governmental policy	___	___	___
b ensure access to markets for all producers	___	___	___
c more actively enforce antitrust legislation	___	___	___
d more actively enforce Minnesota Corporate Farm Law	___	___	___
e repeal legislation allowing limited liability corporations	___	___	___
f monitor contracts	___	___	___

4. Should Minnesota's agricultural policy include the following (check if yes):

a __ incentives for sustainable farming practices
b __ incentives for green spaces, contributions to clean water and air and healthy soil; conservation of wildlife
c __ support for the preservation of agricultural land
d __ shared liability for environmental damage (caused by agriculture) between farmers and businesses under contract
e __ stricter standards for animal confinement operations
f __ promotion of exports
g __ certified labeling of organic foods

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e __ stricter standards for animal confinement operations
f __ promotion of exports
g __ certified labeling of organic foods

h __ labeling of genetically modified foods
l __ support for value-added and niche products
j __ promotion of cooperatives

5. Should the state of Minnesota support the following for rural communities (check if yes):

___infrastructure
___education (including educational development to meet needs)
___liveable wages for workers
___crisis help
___development of leadership skills
___community and regional planning
___networking with farmers and community leaders
___research into viable and sustainable rural communities

6. What priorities should guide state agricultural research policy? On a scale of 1 to 5, indicate highest priority with 5 and lowest priority with 1.

___ Promotion of and research into GMO technologies
___ Promotion of and research into methods which will benefit environmentally sound, family-sized farms
___ Evaluation of the impacts of widespread use of GMO technologies

7. In Minnesota animal agriculture, what values should receive priority? On a scale of 1 - 5, indicate highest value with 5 and lowest value with 1. Values may be equally weighted and need not be prioritized.

___ maximum production
___ animal wellbeing
___ environmental and eco-system health
___ worker and community health and safety

****Questions mulled over and put together by Deanna Lederer , Jo Anne Rohricht, Nancy Gundersen, Stephanie Henriksen, Barbara Vaile, and myself. I and did some editing for clarification.--Helen Palmer**