

MICROFILM DIVIDER

OMB/RECORDS MANAGEMENT DIVISION

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ROLL NUMBER

DESCRIPTION

2385

2005 SENATE AGRICULTURE

SB 2385

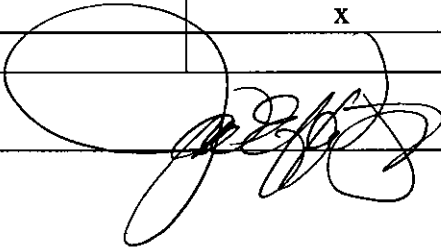
2005 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2385

Senate Agriculture Committee

Conference Committee

Hearing Date February 11, 2005

Tape Number	Side A	Side B	Meter #
1	x		3739 - end
1		x	0 - 5448
Committee Clerk Signature 			

Minutes:

Vice Chairman Erbele opened the hearing on SB 2385, a bill to require the posting and publishing of notices regarding permit applications for confined animal feeding operations.

Senator Nelson introduced the bill.

Jessica Ley, representing Clean Water Action, testified in favor of the bill. (written testimony) (meter 3815) She concluded by saying North Dakota has a long and cherished history of family farms which are definitely suffering due to these huge livestock operations. (meter 4575)

Senator Taylor asked what is the definition of a CAFO. (meter 4803)

Ms. Ley said she was not sure of the number of animals but part of the definition is they have manure lagoons and animals are confined in buildings for their lives.

Senator Taylor asked if someone is going to walk the committee through the bill.

Senator Seymour asked what county planning commissions have enacted this.

Ms. Ley said someone is here from a township that has enacted regulations.

Senator Urlacher asked, with the emphasis on water quality, do you have any statistics as to effects of run off from cities as well.

Ms. Ley said she does not have specifics but she does know CAFOs are the largest source of nitrogen contamination.

Senator Flakoll asked if poop on the prairie is the same as poop in confinement..

Ms. Ley said there is a big difference in terms of what our ecosystem can handle naturally. It is very typical to spread manure on nearby land which is much more than the land can handle.

Senator Taylor said in testimony Ms. Ley stated Minnesota has banned manure lagoons. Of course Minnesota has a large livestock industry. Are they requiring spreading of everything and what about their existing lagoons.

Ms. Ley said she has heard they have banned open air lagoons and her understanding is they are putting them underneath the feedlot which she does not think is much better because the workers and animals have the stench coming off the lagoons directly beneath them.

Representative Boucher testified in favor of the bill. (meter 5277) He followed the debate over the last 20 years. He is a livestock producer. His township used to have many small herds and now has 5 large herds. In the north country we have to confine our cattle to feed and calve them in the winter. His operation is now a CAFO. We have such an issue out there with livestock and livestock raising. Very few counties have implemented zoning regulations. There will be feeding operations, dairy and hogs in North Dakota of significant size. 80 - 90% of our calves leave the state and we believe in value added and would like to feed them here. The real issue in this bill is notification. Political subdivisions need to get up to speed and develop their zoning laws so its not after the fact. When someone is talking about building or expanding an operation

there needs to be notification. We have to try to envision what we consider appropriate and economically viable operations. We need to be environmentally responsible. We need to be careful with health products. We need good open face to face discussions. He does not respect large out of state operations.

Joe Lawson, Ramsey County zoning board, testified in favor of the bill. (meter 296, side B, tape

1) They have put together a zoning ordinance over the past year. A CAFO is an animal feeding operation with over 1000 animal units which means 1000 head of cattle, 2500 swine. In Ramsey county they only require the permitting process for over 1000 animal unit feeding operations. We require the developers to explain that they will not do harm to the land and water and protect the welfare of the residents of the county. When building the ordinance the zoning board listened to all the testimony, like the testimony Ms. Ley gave today. Elite Swine was invited to their planning committee to give testimony and never did. The multiplier effect is not as powerful as what is being said around the state according to experts their zoning board brought in from Minnesota and Colorado. Elite Swine said there were multiplier effects but they were never able to produce the studies to prove it. Ramsey County feels it is essential to have the developer explain to their operation to the county commission. Siting is the most important factor. Not having a hearing has so divided the town of Cando. This bill allows all the people in the county to have a say.

Senator Flakoll asked who has a say in this regulation, the city, county or township.

Mr. Lawson said they looked at supreme court decisions that give zoning authority to the lowest level, the township. The township can give power to the county. The county commissioners should have the right to hold these hearings.

Senator Flakoll asked about cross jurisdictional issues, a CAFO located in the corner of one county that would influence another.

Mr. Lawson said if the proposals by the health department go through, they will handle a lot of this. Counties can require financial assurances, closure plans, set backs. Towner County has accepted the format of Ramsey county, Nelson county too.

Senator Taylor asked if Ramsey county has zoning ordinances, how many others have them.

Mr. Lawson said he only knows about 2 or 3 more. They are trying to develop a nine county umbrella.

Senator Taylor said the bill before us puts state law in front of county regulations that haven't gotten up to speed. In your area, folks are going to get notice.

Mr. Lawson said yes. They require public participation.

Senator Erbele asked with public participation, who can weigh in, residents of the township or a broader group.

Mr. Lawson said county wide.

Senator Flakoll said in a public hearing for planning commission, there a protest area, within so many feet of the proposed development. In your case is the protest area the county. Do you give equal standing to county residents than to outside interests. Arguably there are some people always opposed to CAFO's.

Mr. Lawson said they are trying get everybody, including the developers, to use the confines of the ordinance. They also want the developers to tell them they can operate within the county safely. If you are a resident of the county, actually if you are a resident of the state, you have a right to a say when you are talking about these large animal farms. Just as an aside, swine waste

has 9 to 100 times the pathogens as human waste. It is also classified as a class 1 waste, the most toxic waste you can have.

Senator Klein asked if Cass County has a project, could Fargo vote to stop it, is that what the answer was. Can the voters of Devils Lake stop something in Ramsey County, the voters of Minot stop something in Ward county, any county with any community, because everyone is participating in the vote.

Mr. Lawson said yes, its a democracy and everyone should have their say.

Senator Urlacher asked about development in a drainage area, they have to have upstream and downstream monitors, that exists today.

Mr. Lawson said that is in the draft of the regulations by the health department. In the Ramsey County ordinance, they go further. There are millions of gallons of class one waste just sitting in the storage lagoons waiting for a disaster to happen. They require the CAFOs to prove they are operating within the ordinance.

Senator Flakoll asked how it is determined who is responsible for pollution.

Mr. Lawson said the site location is the most important factor.

Jessica Delorme, Dacotah Chapter of the Sierra Club, testified in favor of the bill. (written testimony) (meter 1765)

Senator Urlacher asked if Ms. Delorme feels the public, through zoning and permitting process, is being left out.

Ms. Delorme said yes, they have a right to weigh in and they don't have that right now, in all counties.

Margaret Howe, Dakota Resource Council, testified in favor of the bill. (written testimony)

(meter 2205)

Jonathon Bry, resident of Bismarck, testified in favor of the bill. (meter 2348) CAFOs have been a major concern of his. He spoke with a woman from Crosby and Divide county a few years ago. She said most people did not know Prairie Pork was coming in from Canada. They formed a group People Against Prairie Pork but it was too late. He lives a few miles out of town and there is a lot of open space around his land and he is concerned if an operation like that came along, he wouldn't want to live there any more. Burleigh county has established some set backs but hasn't gone far enough. The developers are targeting areas with an elderly population that don't have the time or money to fight them. He supports family farmers. His grandparents were farmers. The CAFOs don't treat their employees well. In Mississippi five years ago, they locked a feeding facility so the employees wouldn't go out and smoke and a fire killed most of the employees. A lot of his testimony is against CAFOs in general but he recommends a do pass on the bill.

Wade Moser, North Dakota Stockmen's Association, testified against the bill. (meter 2926)

This is already covered in the rules and regulations of the health department. Concerned communities are divided because of emotion and not science. The health department has been good about sticking to the science and facts on the issues, not emotion. Although some may view this as an attack on out of state operations, our own ranchers will also have to follow the regulations and bear the costs. It is better to put this in the hands of the counties. Some townships have only two residents, this bill would require a lot of expense and time for them to comply. How much burden do want to put on someone. There is a need for science.

He will provide the committee early next week with facts from EPA about what causes pollution in this country and this state and CAFOs are not number one. This documentation is from a study commissioned by EPA. It is unfortunate that with our knowledge, no one has to be responsible for their information anymore. Set backs are important and are already addressed. **Senator Klein** said in 1999 a tremendous amount of time was spent with the counties to help them develop ordinances.

Mr. Moser said they developed model zoning. He agrees the counties and townships need to get going. We need to protect agriculture interests and have public participation.

Senator Taylor asked how many counties have taken actions.

Mr. Moser said several are working on it. Burleigh, Morton, Ward, Ramsey, Grand Forks, Ransom, Oliver are in place, several others are working on it.

Senator Klein asked if there is a process if a feeding operation is expanded to over 1000 head.

Mr. Moser said if an operation is over 1000 head, there are EPA regulations which apply which the health department regulates and they would need a permit.

Senator Urlacher asked if the permits require a public hearing.

Mr. Moser said it is his understanding they do.

Brian Kramer, North Dakota Farm Bureau, testified against the bill. There is not a need for the bill. There is already a lot of opportunity for public input. Public notice is given on CAFOs when they are being sited and permitted. It is a local issue. The counties have been slow in zoning but it is coming.

Dennis Fewless, Director of Water Quality for the North Dakota Department of Health, provided information for the committee. He handles the animal feeding rules.

Senator Seymour asked how Mr. Fewless feels about counties being urged in 1999 to get this done, Ward county took the lead and had the vision to get it done but the other counties are not taking care of it. Maybe we need another law to take care of this. (meter 3850)

Mr. Fewless said they try to separate the health department mandate from the zoning. The zoning deals with location and the health department deals with engineering to assure down water, surface water and odor rules are met by the facility. It would be great if all the counties and townships had zoning rules to address this up front rather than after the fact.

Senator Urlacher asked if they have public hearings.

Mr. Fewless said in operations with over 1000 head beef, 2500 head for hogs, and 700 for dairy operations, they have a public notice required. If there is a justifiable concern by people in the community, they have a hearing. With smaller operations they have public notice if they see issues with ground water, surface water or potential odor, if there is someone within 1/2 mile of the proposed facility.

Senator Urlacher asked if the counties are moving forward.

Mr. Fewless said Ramsey county has put in a 1 1/2 mile setback for future facilities.

Senator Taylor asked where notice is made, how is it determined a hearing is necessary.

Mr. Fewless said if they deem people who are living close, a shallow aquifer, if there are justifiable concerns there is a hearing, its not automatic.

Senator Taylor asked if there was a hearing in Towner county.

Mr. Fewless said the rules were not in place at that time, it wasn't a hearing it was an informational meeting.

Chairman Flakoll closed the hearing on SB 2385.

Senator Seymour said he was on the planning commission for Ward county, six years ago they were told to do this, they were scared, they were told if they didn't do it, the state would put it on them. If counties haven't taken care of it, we should put it on them.

Senator Flakoll said the intern looked up the 1999 bill, HB 1457 was defeated in the house.

Senator Klein said in 1999 they spent days working on getting the counties and townships together on the model zoning. That was over the Larimore hog plant. We thought we had accomplished what we set out to do. In the case of Crosby, that was in the paper long before that group came to town. Certainly there is public notice. We are opening up a big can of worms here. In one bill we are encouraging feedlot expansion, now we are adding rules. He is really uncomfortable that a city can defeat development going on in the rural areas.

Senator Urlacher said he is very uncomfortable with it. (meter 4646) There is public access to the concerns, water or siting. Counties are moving and are seeing the importance of moving. The groups have their own agendas.

Senator Taylor said it was interesting when the health department representative said there are EPA regulations in place now that weren't in place when the Cando facility was built.

Senator Flakoll said the 1999 bill was very similar. The line 6 renovation language is a concern. You may risk losing what you already have if you want to fix up a facility.

Senator Klein said he is proud of Ward and Burleigh county. The city is encroaching on the farms. There are a lot of issues. Sometime we get emotions ahead of science. We have setbacks in place, everything is working.

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Senate Agriculture Committee

Bill/Resolution Number SB 2385

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Senator Erbele said with the public involvement he is concerned with who makes the final decisions. It needs to be based on science. Those in the neighborhood need science based information.

Senator Flakoll said that is the nature of city and planning commissions.

Senator Klein said shutting down the little guy is an issue. If a 5000 head hog operation tries to come into a county, that is big news and people will know about it. If a small producer wants to expand his operation, he could be in jeopardy. The big guys are regulated by EPA, the state.

Senator Taylor said when talking about Ramsey county, there are some things in code that allow counties to work together.

Senator Erbele moved for a do not pass on SB 2385.

Senator Klein seconded the motion.

The motion passed on a roll call vote 5-1-0.

Senator Urlacher will carry the bill.

Date: 2/11/05
 Roll Call Vote # 1

2005 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2385

Senate Agriculture Committee

Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Do Not Pass

Motion Made By Sen. Erbele Seconded By Sen. Klein

Senators	Yes	No	Senators	Yes	No
Senator Flakoll	✓		Senator Seymour		✓
Senator Erbele	✓		Senator Taylor	✓	
Senator Klein	✓				
Senator Urlacher	✓				

Total (Yes) 5 No 1

Absent 0

Floor Assignment Sen. Urlacher

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE (410)
February 11, 2005 12:45 p.m.

Module No: SR-28-2551
Carrier: Urlacher
Insert LC: . Title: .

REPORT OF STANDING COMMITTEE

SB 2385: Agriculture Committee (Sen. Flakoll, Chairman) recommends DO NOT PASS
(5 YEAS, 1 NAY, 0 ABSENT AND NOT VOTING). SB 2385 was placed on the
Eleventh order on the calendar.

2005 TESTIMONY

SB 2385

Testimony Regarding Senate Bill 2385

Chairman Flakoll and member of the Senate Agriculture Committee, My name is Jessica Ley, here today representing Clean Water Action. Clean Water Action is a non-profit citizen environmental lobby group that represents 10,000 people from across North Dakota, from all walks of life. Those members are recruited through canvassing. Our organizers go door-to-door in communities throughout the state, inform your constituents about pressing environmental and health related issues, and get folks involved as members of the organization. We have been speaking to communities as of late regarding Senate Bill 2385 that would require public notification and a public hearing if a Confined Animal Feeding Operation (CAFO) files a permit with any governmental entity. We have found overwhelming support for this issue. Your constituents believe they should be notified and have a say in their community.

Clean Water Action strongly supports S.B. 2385 for a multitude of reasons. Water quality is strongly affected by CAFO's, they confine enormous amounts of animal waste in relatively small areas. Even clay-lined lagoons may leak up to several thousand gallons per acre per day (Sierra Club), these lagoons have such an impact on water quality that Minnesota has banned them. Even state of the art facilities have accidents, in the late 1990's in Minnesota 2 CAFO's had spills of over 100,000 gallons of animal waste each. One because a switch malfunctioned, killing everything for 18 miles downstream. The waste itself is a problem, but in addition it is a major source of nitrogen, phosphorus, dangerous bacteria, and antibiotics. CAFO's are the largest source of total in-stream nitrogen, more so than any point source-in fact applying animal manure to the ground near wells doubles the likelihood that nitrate levels in the well will be unhealthy (EPA, 1998). Communities near factory farms rely on groundwater for

their drinking water; excessive nitrates are linked to blue-baby syndrome, spontaneous abortions, and fish kills.

Bacteria found in the animal waste like *fecal coliform*, *e. coli* are proven to cause illness. Other small organisms are found in animal waste like *Cryptosporidium*-responsible for more than 100 deaths and 403,000 illnesses in Milwaukee, Wisconsin.

CAFO's rely heavily on the sub therapeutic use of antibiotics to prevent disease in their livestock due to the unhygienic conditions, and also to fatten livestock faster. Livestock are fed eight times the amount of antibiotics that are given to humans every year, 25 million pounds (Union of Concerned Scientists, 2001). The sub therapeutic use of antibiotics has created many strains of antibiotic-resistant bacteria, the treatment of these antibiotic-resistant infections may cost the U.S. up to \$30 billion annually (National Institute of Allergy and Infectious Disease). 6 out of the 17 classes of antibiotics available to humans are used to promote growth in livestock (New York Times, 1999). An example, more than one-third of the salmonella poisoning cases in 1997 were found to be resistant to five antibiotics. Another example, methicillin-resistant staph bacteria has increased from 2.4 to 29 percent in 16 years (Panlilio, 1992).

Air quality is also affected, up to several miles away from a CAFO. CAFO's are a source of hydrogen sulfide, ammonia, methane gas, up to 170 separate chemical substances (Sierra Club). People residing near these facilities suffer significantly higher levels of upper respiratory and gastrointestinal ailments than people living in non-livestock areas (Wing, 1999). A recent study indicates children are more likely to develop asthma near these CAFO's (Hunter, 2005) Studies coming out recently are showing long-term exposure to these odors cause permanent damage. The odors also impact property values up to 3 miles away-about \$112 per acre (Hamed, 1999).

A response that is heard in support of these CAFO's is that they provide jobs in a community. However, workers in these facilities are exposed to toxic levels of the above-mentioned gases. One quarter of all swine confinement workers experience chronic health effects, such as bronchitis (Dohnma, 1993). These jobs also pay minimum wages, and have a high turn over due to the work environment.

Above all, this legislation would allow the people to decide what is best for their health and community-they should have a say since they will have to live with the decision. If you believe these CAFO's do not present a problem for public health, then alerting the public of their intent to move in should not be a barrier. If you believe they do pose a risk to public health, then this legislation is more than justified. This legislation allows the local government to decide, and they will make the best decision.

Thank you for your consideration,

Jessica Ley
North Dakota Clean Water Action
701-235-5431
jley@cleanwater.org

To Whom It May Concern:

I understand a bill is being considered that will force a county to notify the public if a Concentrated Animal Feeding Operation (CAFO) intends to move into a community. Such a bill will help ensure a public hearing so the citizens can voice their opinion, thereby having input into such a major decision as to where these operations are located. I most definitely recommend such a bill.

Background: We are third generation farmers; our Botz Family Farm is located in Coolin and Maza Townships. Our paternal grandparents homesteaded this land in 1896 and build the home in 1902; the farm is now in the Botz Family Farm, LLC and my sisters and I manage it. The land itself is in the "heart of the durum triangle," lush and vital and teeming with wildlife and fish; a potentially fragile ecosystem. There is a 20,000+ hog factory farm permitted 1.7 miles from our farm and 8,000 feet from the Mauvais Coulee which runs directly into the Devils Lake Closed Basin, already on the 303(d) impaired watershed list, inviting pollution to our surface and groundwater. We were not notified as was required by the township that this operation was going in; other neighbors were not notified as well. The proposed bill would have helped to alleviate two years of letters and calls to the Department of Health, townships, EPA, etc. as well as a lawsuit that we filed last May.

Quite frankly, CAFOs often seek to locate in economically depressed areas where regulation is weak. Each county needs to protect itself with better ordinances and support its neighbors in doing so as well. In my opinion, the proposed bill would be a huge asset.

Thank you for your consideration.

Ginny Botz-Taylor
Botz Family Farm LLC
7187 70th St. NE
Cando, ND 58324

Jessica Delorme
Dacotah Chapter of the Sierra Club
SB 2385

Mr. Chairman and members of the Senate Agriculture Committee, my name is Jessica Delorme and I represent the Dacotah Chapter of the Sierra Club. I am here today in support of the Senate Bill 2385.

This bill asks for a thirty day notification period for citizens of a community before a confined animal feeding operation (CAFO) will be given a permit to build in that area. The members of that community should have the right to decide if a CAFO is something they want in their area. Along with that they have a right to learn what sort of effects an operation like this can have on their communities. The reason for this is that many of the effects of a CAFO can be quite costly, long term and potentially serious.

Confined animal feeding operations can have any number of adverse effects on the communities they are built in. One of the biggest and most obvious is the problems created for neighbors because of increased odor, gases, flies, rats and other scavenging animals. One consequence of these effects is a decreased land value near CAFO facilities. An 18 month study in rural Missouri found an average of a \$58 per acre loss of value within 1.5 miles of these facilities. These are all things people have a right to know and discuss.

There are also a great number of concerns over contaminating water supplies. If these operations aren't managed properly, manure waste and carcasses threaten water quality for everyone around. Community members have a right to know about this beforehand and weigh in when the companies are asking for permits. Water supplies are expensive, but necessary. If a community's water supply is contaminated, they have no choice but to pay to clean it up. And that, too, is costly. In South Carolina the state has been forced to take on responsibility for closing hog lagoons. The cost has averaged \$42,000 per surface acre of lagoon. These costs are paid by the taxpayer, not the companies. They must be paid as CAFOs can potentially contaminate water with antibiotics, disease and dangerous

chemicals. This is yet another reason for the communities to have a say in the permit process.

In a 2001 study of farming dependent areas, which would include many small communities in North Dakota, it was found that if environmental problems such as these are created, they may undermine a community's opportunity to expand its economic base. CAFOs provide a loss of resources for the farms and rural communities because many CAFO facilities are so large that their control often lies in large metropolitan areas. This was confirmed in a study of 1,106 rural communities across the Midwest. Data also showed that communities with heavy hog concentration suffered larger population losses than those with conventional hog operations. In our rural communities with dwindling populations, don't citizens have a right to decide if they want one more contributing factor for population loss?

I have discussed many of the potential risks that a CAFO can create for a community and these are all reasons why citizens should be notified before such a facility is constructed in their areas. There are potentially harmful effects to citizens' land value, water supplies and health.

I would urge a do pass recommendation for Senate Bill 2385.

A Summary of the Regional Economic Effects of CAFOs

Dr. William J. Weida

Department of Economics

The Colorado College, Colorado Springs, CO

and

The Global Resource Action Center for the Environment (GRACE)

Factory Farm Project

www.factoryfarm.org

bweida@earthlink.net

July 21, 2001

Interference with Amenities

Amenities are those characteristics that make a region pleasant or a desirable residence. Amenities differ from one region to another, but each amenity helps create a quality of life that draws people to an area and makes them want to stay there. Large hog CAFOs tend to diminish local amenities. In 1990, Abeles-Allison and Connor found that large, concentrated animal-feeding operations can generate flies, odors, and other externalities that decrease land values near production facilities. A Michigan study estimated that house values decreased \$0.43 for each additional hog within a five-mile radius..i[1]

This study may overestimate the loss in real estate value because home sale observations were recorded only near hog farms having received multiple complaints. However, in 1999 Chapin and Boulind also found that the effects of large hog farms on the amenities of a region are far reaching. Besides the odor and gases, nearby residents must cope with an increasing number of flies, rats, and other scavenging animals.

Improperly managed manure wastes and pre-slaughterhouse carcasses threaten water quality. The close proximity of humans to these facilities raises concerns that infectious diseases may cross over from hogs to humans. In addition, new evidence indicates that the use of antibiotics in industrial swine production can contribute to the increase of antibiotic resistance in human pathogens. ii[2]

In a 2001 study of farming dependent areas, Tweeten and Flora found that if they create environmental problems such as those just discussed, newly developed or arrived CAFOs may undermine a community's opportunities to expand its economic base. iii[3] They also found that the vertical coordination structure used by large CAFOs can cause a loss of resources from farms and rural communities because CAFO facilities tend to be so large and because ownership and control may reside in distant metropolitan centers. iv[4] All else being equal, they found the productivity gains attributed to large CAFOs decrease aggregate employment and other economic activities in rural communities. v[5]

This was confirmed by a study of 1,106 rural communities by Gómez and Zhang of Illinois State University who found that large hog farms tend to hinder rural economic growth at the local level. All models in this study indicated an inverse relationship between hog production concentration and retail spending in local communities. Economic growth rates were 55% higher in areas with conventional hog farms as opposed to those with larger hog operations in spite of the fact that economic growth rates had been almost identical in all the studied communities before the advent of larger hog operations in the 1990s. Data in the study also showed that communities with heavy hog concentration suffered larger population losses than those with conventional hog operations. According to the authors, the results of this study suggest that without public policy to protect rural communities, the most probable outcome is the continuing decline of rural communities in the future as the size agriculture and livestock production units continue to increase. vi[6]

A study by Palmquist, Roka and Vulkina (1998) shows that large hog operations tend to depress the sales value of nearby homes and real estate. vii[7] An eighteen month study of 75 rural land transactions near Premium Standard's hog operations in Putnam County, Missouri conducted by the departments of Agricultural Economics and Rural Sociology at the University of Missouri found an average \$58 per acre loss of value within 3.2 kilometers (1.5 miles) of the facilities. This study primarily evaluated farmland without dwellings. These findings were confirmed by a second study at the University of Missouri-Columbia by Hamed, Johnson, and Miller that found that proximity to a hog ILO does have an impact on property values. Based on the averages of collected data, loss of land values within 3 miles of a hog ILO would be approximately \$2.68 million (US) and the average loss of land value within the 3-mile area was approximately \$112 (US) per acre. viii[8]

These findings were further substantiated by a Sierra Club study that discovered tax adjustments by county assessors in at least eight states lowered property taxes for neighbors of CAFOs. As Table 1 shows, local property tax assessments were lowered in Alabama, Illinois, Iowa, Kentucky, Maryland, Michigan, Minnesota and Grundy County, Missouri. Grundy County has lowered some residents' taxes by up to 30% due to their close proximity to the corporate hog operations of Continental Grain.

Table 1--Property Tax Reductions In Areas Around ILOs

<u>Area</u>	<u>Amount of Reduction</u>	<u>Reduction In Value Of:</u>
Grundy Co, MO	30%	
Mecosta Co, MI	35%	dwellings only
Changed to structures)	20%	total property (land and
Midland Co, MI	20%	
DeWitt Co, IL	30%	rescinded
McLean Co, IL	35%	
DeKalb Co, AL	base reassessment, variable rates	
Renville Co, MN	base reassessment, variable rates	dwellings only
Humbolt Co, IA rescinded	20-40%	dwellings only--now
Frederick Co, MD	10%	now reduced to 5%
Muhlenberg Co, KY	18%	dwellings only

Radius of reduction varied, up to 2 miles. All were for hogs except Muhlenberg, for chickens.

Source: Property Tax Reductions, scott.dye@sfsierra.sierraclub.org, March 13, 2000

The Potential Impact of CAFO Production On Regional Economies

The four economic characteristics that generally define a CAFO are fundamentally incompatible with regional economic development. Regional economic development proceeds on the premise that the wages paid and purchases made by a company are transferred to other individuals or companies in the region. The multiplier effect of these payments further assumes that they are again spent within the confines of the region and that they do not "leak" into other areas of the state or nation. However CAFOs are structured so they will not aid regional economic development for the following reasons:

(1) Constraints on Regional Economic Development Due To Employment

As a capital intensive company, a CAFO is designed to minimize the number of workers and hence, minimize the economic impact on the region. A 1998 Colorado State University study found that only 3-4 direct jobs (jobs with the hog producer) are created for every 1000 sows in a CAFO sow farrowing operation.ix[9] Ikerd calculated that a farrow-to-finish contact hog operation would employ about 4.25 people in to generating over \$1.3 million in revenue. His figures showed that an independently operated hog farm would employ about 12.6 people to generate the same amount of hog sales.x[10] Further, a number of studies have found that compared with small farms with an equivalent composite production value, a large farm tends to buy a smaller share of consumption and production inputs in nearby small towns. p. 25xi[11]

This is important because input-output analysis shows each farm job adds another job in local communities and another in the state outside the local communities. Similarly, each \$1,000 of farm income adds another \$1,000 to local communities and another \$1,000 to the state outside the local communities.xii[12] However, the real issue here is whether or not CAFOs are even agricultural operations. A good case can be made that CAFOs are much closer to industrial operations and if one treats CAFOs as industrial operations, the multiplier would be much lower--about 1.35.xiii[13]

Either of these figures probably overstate the economic impact on rural counties. For the employment multiplier to operate at the levels specified in the above paragraphs all employees must both live and work inside the region. Given the ability to commute, it is likely that many workers will live well outside the region and that the resulting employment multiplier will be further depressed.

The size of the employment multiplier further depends on amount of purchases a CAFO makes in the region. However, large scale animal production facilities are more

likely to purchase their inputs from a great distance away, bypassing local providers in the process.xiv[14] A 1994 study by the University of Minnesota Extension Service found that the percentage of local farm expenditures made by livestock farms fell sharply as size increased. Farms with a gross income of \$100,000 made nearly 95% of their expenditures locally while farms with gross incomes in excess of \$900,000 spent less than 20% locally.xv[15]

Confined animal production can occasionally benefit local grain sellers, but only when it consumes all the grain produced in the county. If the county has to export even one bushel of grain, all the grain in the county will have to be priced at a lower level that will enable the grain to compete in the export market.xvi[16]

(2) Constraints on Regional Economic Development Due To Taxes

Federal, state and local taxes are levied on taxable amounts calculated on federal returns. The numerous tax write-offs that are possible because CAFOs are sometimes treated as industries and, at other times, treated as farms, significantly decrease the amounts of taxes paid locally. At the same time the operations of the CAFO create social, health and traffic costs that the local government must finance. The local government, in turn, must rely on increased taxes to pay these CAFO-induced costs--and this can decrease other economic activity in the region.

For example, additional costs associated with hosting a CAFO include increased health costs, traffic, accidents, road repairs, and environmental monitoring. One Iowa community estimated that its gravel costs alone increased by about 40% (about \$20,000 per year) due to truck traffic to hog CAFOs with 45,000 finishing hogs. Annual estimated costs of a 20,000 head feedlot on local roadways were \$6447 per mile due to truck traffic.xvii[17] Colorado counties that have experienced increases in livestock operations have also reported increases in the costs of roads, but specific dollar values are not available. xviii[18] In addition, an Iowa study found that while some agricultural land values increased due to an increased demand for "spreadable acreage," total assessed property value, including residential, fell in proximity to hog operations. xix[19]

(3) Constraints on Regional Economic Development Due To Vertical Integration

Vertical integration requires purchases from and sales to other members of the vertically integrated company, not from local producers and suppliers. Thus, vertically integrated companies stimulate regional economies only to the extent that all elements of

the company are located in the region. Historically, this factor has severely limited the economic impact of CAFOs on the regions in which they are situated. For example, Lawrence found that in Iowa smaller hog operations (less than 700 head annually) purchased 69 percent of their feed within 10 miles of the operation. Large hog operations (2000 or more hogs per year) that are more likely to be vertically integrated only purchased 42 percent of their feed within 10 miles of the operation. xx[20]

Tweeten and Flora also find that consolidation affects the ability of small producers to respond to shifting demand by entering or leaving markets. Large CAFOs tend to have higher overhead costs (fixed costs for facilities and equipment) than operating costs (variable costs for labor and feed). This means that in hog CAFOs, large buildings must be kept full in order to minimize cost/unit and in the face of falling prices, large CAFOs will increase production because it lowers their overall cost to produce each pig.

Conversely, conventional operations have lower fixed costs and higher variable costs. These operations will reduce their production in a time of falling prices. Thus, in the past, the burden of adjusting hog supply to weak demand has fallen on small producers and it has driven most of them out of the market. xxi[21] The demise of the majority of small producers has created a dilemma for large hog CAFOs because it signals an end to the period when overproduction by large producers can be absorbed by forcing small producers out of the market. To address this problem, large hog agribusiness appears to be creating another class of small farmers—contract operators—who can be cut out of the market when demand falls. Since the fate of these individuals is entirely in the hands of large agribusiness concerns, it will be easy to quickly create slack in the markets when hog prices fall by simply canceling contracts and removing hogs from the contract producers.

(4) Constraints on Regional Economic Development Due To Cost Shifting

The previous three sections have described the reasons inherent in the structure of CAFOs that most of the money from a CAFO will either be directly spent outside the region or it will quickly migrate there. However, through cost shifting the CAFO will also leave the costs of its odor, health risks, surface water pollution, ground water pollution and in the long run, its abandoned lagoons and facilities for the region to deal with. For example, these costs may arise from:

- (1) The Cost of Odor From Injecting or Broad-Casting Manure

Actual field tests on injection odor were conducted in Iowa in 1998 by Iowa State University. The researchers found that injecting manure resulted in odor reductions of as little as 50% and never greater than 75% compared to broad-cast applications (application by sprinkler--the highest odor option.)xxii[22] Thus, injection of manure can be accompanied by substantial odor.

(2) The Cost of Groundwater Contamination From Manure

Ruhl studied earthen basins with above-grade, earth-walled embankments and compacted clay liners. The hog basins held a manure-water mixture from a 5000 pig gestation barn. Monitoring systems were installed below the compacted clay liners both in the sides and the bottom of the basin. Seepage from the basin ranged from 400-2200 gallons per day except during one month and three month periods when 3800 to 6200 gallons per day. Seepage flow in areal units ranged from .025 to .43 inches/day. Except during the first three months when the basin was filling, seepage flow was greater through the sidewalls than through the bottom of the basin. The seepage had concentrations of 11 to 100 mg/L of chloride, 2.58 mg/L or less of ammonium-N, 25.7 mg/L or less of nitrate-N, and organic-N concentrations of .92 mg/L or less. Nitrate-N concentrations in the seepage exceeded the US Environmental Protection Agency drinking water standard of 10 mg/L in 17 of 22 samples.xxiii[23]

Injection of liquid manure is only acceptable in areas where pathways to the underlying groundwater do not exist. Improperly closed wells are a likely source of groundwater contamination. For example, based on a number of scientific studies, the US Department of Agriculture's Agricultural Waste Management Field Handbook states specifically that

(n) Presence of abandoned wells and other relics of past use

The site and its history should be surveyed for evidence of past use that may require special design considerations.... If an abandoned well exists on the site, special efforts are required to determine if the well was sealed according to local requirements. An improperly sealed well can be a direct pathway for contaminants to pollute an aquifer. Other remnants of human activity, such as old foundations, trash pits, or filled-in areas, require special design or site relocation.xxiv[24]

The Field Handbook also stresses that caution is necessary because openings formed after initial deposition or formation of the soil enable contaminants to move to the groundwater with little attenuation (reduction) or filtration. xxv[25]

(3) Potential Costs from Pathogens, Chemical and Antibiotics in Manure

A large number of diseases are present in animal manure. These diseases are not present in inorganic fertilizers. Table 2 shows that the potential presence of 25 different diseases in animal manure make this form of fertilizer very different from the inorganic chemicals that are used as crop fertilizer.

Table 2, Diseases and organisms spread by animal manure

<u>Disease</u>	<u>Responsible organism</u>	<u>Disease</u>	<u>Responsible organism</u>
Bacterial		Viral	
Salmonella	Salmonella sp	New Castle	Virus
Leptospirosis	Leptospiral pomona	Hog Cholera	Virus
Anthrax	Bacillus anthracis	Foot and Mouth	Virus
Tuberculosis	Mycobacterium tuberculosis	Psittacosis	Virus
	Mycobacterium avium		
Johnes disease	Mycobacterium	Fungal	
	paratuberculosis	Coccidioidomycosis	Coccidoides immitus
Brucellosis capsulatum	Brucella abortus	Histoplasmosis	Histoplasma
	Brucella melitensis	Ringworm	Various microsporium and trichophyton
	Brucella suis		
Listeriosis	Listeria monocytogenes	Protozoal	
Tetanus	Clostridium tetani	Coccidiosis	Eimeria sp.
Tularemia	Pasturella tularensis	Balantidiasis	Balatidium coli.
Erysipelas	Erysipelothrix rhusiopathiae	Toxoplasmosis	Toxoplasma sp.
Colibacilosis	E.coli (some serotypes)		
Coliform mastitis	E.coli (some serotypes)	Parasitic	
Metritis		Ascariasis	Ascaris lumbricoides
		Sarcocystiasis	Sarcocystis sp.
Rickettsial			
Q fever	Coxiella burneti		

Source: Agricultural Waste Management Field Handbook, United States Department of Agriculture Soil Conservation Service, April, 1992, p. 3-13, 3-14.

The pathogens present in hog manure are not found in inorganic chemicals. These pathogens could be transported to ground water supplies through improperly sealed wells or other naturally occurring pathways. Studies released since 1999 have found that:

- (a) Swine herds are a potential animal reservoir for Swine Hepatitis E Virus and this virus is present in fields to which manure has been applied and in water waste from these fields. Swine Hepatitis E Virus may persist in the environment for at least 2 weeks and possibly longer.xxvi[26]
- (b) A broad profile of chemical and microbial constituents are present in both ground and surface water proximal to large-scale swine operations--chemical (pesticides, antibiotics, heavy metals, minerals, and nutrients) and microbial (*Escherichia coli*, *Salmonella* sp., *Enterococcus* sp., *Yersinia* sp., *Campylobacter* sp., *Cryptosporidium parvum*) contaminants were present.xxvii[27]
- (c) Antibiotics are present in waste generated at confined animal feeding operations and may be available for transport into surface and ground water.xxviii[28]

(4) The costs of closing hog lagoons

In South Carolina, where the state has been forced to assume responsibility for closing hog lagoons, the cost has averaged \$42,000 per surface acre of lagoon. These costs are paid by the taxpayers of state, not the companies that created the lagoons.xxix[29] By comparison, The Big Sky Farming Group, LLC proposed a total remediation cost—including lagoon closure--of less than \$1 million for a 55,000 sow farrow-to-finish operation that had 160 sow barns, 240 finishing barns, 527 acres of 5 foot deep evaporation pits, 141 acres of 11-12 foot deep settling pits, and 30 digesters for methane production.xxx[30]

Not surprisingly, costs shifted to the residents in a region by CAFOs adversely impact the value of neighboring property in the region and this, in turn, lowers the taxable value of these properties. Palmquist et al., in a 1995 study in North Carolina, found that neighboring property values were affected by large hog operations based on two factors: the existing hog density in the area and the distance from the facility. The maximum predicted decrease in real estate value of 7.1 percent occurred for houses within one-half mile of a new facility in a low hog farm density area. A 1997 update of this study found that home values decreased by \$.43 for every additional hog in a five

mile radius of the house. For example, there was a decrease of 4.75% (about \$3000) of the value of residential property within 1/2 mile of a 2,400 head finishing operation where the mean housing price was \$60,800. xxxi[31] A 1996 study by Padgett and Johnson found much larger decreases in home value than those forecast by Palmquist. In Iowa, hog CAFOs decreased the value of homes in a half-mile radius by 40%, within 1 mile by 30%, 1.5 miles by 20% and 2 miles by 10%.xxxii[32]

Costs such as those in (1) to (4) above can also directly affect both long and short run regional economic development. As Tweeten and Flora note, costs of odor-, waste-, and pest-control need to be charged to the producing units and not to their neighbors or to other "downstream" parties.xxxiii[33] Unfortunately, the costs of hog CAFOs are currently charged to the residents of the region and the regional effect of this cost shifting is felt both in its impacts on current residents and on those residents and businesses that do not move to the region due to the presence of these costs. Put bluntly, every company and every potential resident have many choices of location and active recruitment is practiced by most regions. Quality of life is a major factor in decisions to locate in a region, and neither companies nor potential residents would ever consider locating in an area where a large hog CAFO is operating.

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Testimony SB 2385
Senate Agriculture Committee
February 11, 2005

Chairman Flakoll and Members of the Senate Agriculture Committee,

My name is Margaret Howe and I am representing Dakota Resource Council, (DRC), and we stand in support of Senate Bill 2385.

Dakota Resource Council (DRC) works to change policy regarding sustainable energy, responsible oil and gas development, fair trade in agriculture and other issues that directly affect our 600+ members.

A bill almost identical to this, HB 1457, was introduced in the 1999 session and we are glad that we have another opportunity to show support for this concept.

The public's right to know is an issue that DRC has championed ever since its inception in 1978.

Large confined animal feeding operations impact communities in many ways. Some of these impacts are beneficial for communities but there may be others that are less welcome.

It is important that the community is aware of the potential impacts of such an operation and has the ability to be involved in the process as appropriate. This can only improve relationships between the applicant and the community.

We urge a 'Do Pass' on this bill.