

**AN AFFRONT TO THE RURAL WAY OF LIFE:
LOCAL EFFORTS TO REGULATE CONCENTRATED ANIMAL FEEDING
OPERATIONS IN WORTH COUNTY, IOWA**

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I. INTRODUCTION

In 2001, the Worth County, Iowa Board of Supervisors passed an ordinance proposed by the Worth County Board of Health establishing local regulation of air and water emissions as well as worker health protections for concentrated animal feeding operations (“CAFOs”) in the county. The ordinance was the culmination of almost two years of community organizing and public hearings around the issue. A group of local hog producers and the Iowa Farm Bureau sued the county seeking to invalidate the ordinance. The Iowa Supreme Court struck down the ordinance, ruling that county governments are preempted by Iowa state law from regulating CAFOs.

While ultimately unsuccessful in court, Worth County’s attempt to regulate CAFOs was part of a lively public discourse throughout Iowa about the state of local control over CAFOs. The ordinance made clear to Worth County pork producers the community’s health standards. The controversy also created opportunities to educate the public about the health effects of mismanaged

**ABOUT THE
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Funded by the Robert Wood Johnson Foundation’s Public Health Practice & Policy Solutions, the Project uses case study research methodology to investigate threats of litigation made during the proposal and passage of public health laws. The case studies examine this experience across a range of public health issues. Public health officials, attorneys and advocates provide insight into their decision-making and planning process in anticipation of and in response to legal challenges.

CAFOs. Worth County residents are now well-informed and well-organized around the environmental health issues associated with mismanaged CAFOs.

II. HOG PRODUCTION IN IOWA: THE PROLIFERATION OF CAFOs

More than one-quarter of pork consumed in the United States is produced in Iowa.¹ While Iowa has always been a top pork producer, over the past twenty years the state has seen a marked increase in the number of CAFOs. An animal feeding operation is defined by the U.S. Environmental Protection Agency as an animal feeding operation where animals are confined for at least forty-five days during any twelve-month period; and crops, forage growth, and other vegetation are not grown in the area where the animals are confined.² CAFOs housing hogs also are commonly referred to as “hog lots” or “hog barns.”

The rise of CAFOs in Iowa reflects an industry-wide trend: “Once dominated by many small operations as part of traditional crop-hog farms, hog production has become highly concentrated on large operations with production on several different sites. As of 2002, nearly half of the U.S. hog inventory was owned by operations with more than 50,000 head.”³ The shift from a large number of farming operations, where livestock was integrated with vegetable crop growth, to animal-only operations has occurred rapidly. Between 1987 and 1997, Iowans saw “the number of farms raising hogs halved while the number of hogs and pigs sold per farm more than doubled—and total production grew steadily (by 17% over 10 years)”⁴ By 2008, Iowa had 8,300 hog operations,⁵ down from an estimated 11,000 in 2000.⁶

The concentration of animals has led to new challenges in manure management as summarized by the Economic Research Service of the United States Department of Agriculture:

In Iowa and North Carolina alone, this translates into handling a hog waste volume roughly equal to the sewage from one-third of the U.S. human population[.]. Rapid expansion and consolidation in U.S. hog production has meant that the responsibility for managing this volume of hog manure has become more concentrated among fewer operations, and the risks of mismanaging manure are magnified.⁷

Whereas waste generated by a small number of animals could readily be applied as manure, large quantities of animal waste are much harder to manage and are often stored in pits or open manure lagoons. As noted by Richard Holstad, a longtime Worth County resident and farmer who formerly served on the Worth County Board of Supervisors, “I’m about as rural as you can get...these new hog houses that come in...the corporate farms...This one is different...thousands of hogs [that make] people concerned about property being devalued to say nothing about the health [consequences].”⁸

III. ADVERSE PUBLIC HEALTH EFFECTS OF CAFOS

Since 2003, the American Public Health Association has called for “precautionary moratorium on new concentrated animal feed operations.”⁹ CAFO workers, neighbors and water supply users are exposed to air and water contamination from vast amounts of swine waste, leading to respiratory and diarrheal illnesses and neurological and mood problems.¹⁰ A study published in 2009 using two decades of county-level national data found:

. . . a positive relationship between the concentration of industrial production in livestock farming and infant mortality rates . . . In practical terms, counties with increases in animal units between 1982 and 1997 experienced on average a 35% gain [in the number of animal units]. This corresponds to a 2.8% increase in infant mortality in these counties, or an additional 3,500 infant deaths between 1982 and 1997.¹¹

Public health also is threatened by the pork industry's use of medically important antibiotics in hog production.¹²

While the health effects of CAFOs in Iowa remains a contested issue, the public debate in Iowa was informed by a 2001 report by Iowa State University and University of Iowa, commissioned by Governor Tom Vilsack to study the public health effects of CAFOs. With respect to air emissions, the study concluded:

Taken together with other experimental and epidemiological observations of adverse health effects observed with low levels of exposures to chemical components (ammonia, hydrogen sulfide) of CAFO emissions, these findings support a conclusion that CAFO air emissions constitute a public health hazard, deserving of public health precautions as well as larger, well controlled, population-based studies to more fully ascertain adverse health outcomes and their impact on community health services.¹³

In its 2008 *Legislative Priorities* publication, the Iowa State Association of Counties called for a “temporary moratorium on new construction or expansion of industrial livestock facilities (CAFOs) until the negative impacts of industrial livestock production on water quality, air quality, property rights, independent local farmers’ financial profits, health and quality of life have been thoroughly addressed in a responsible manner.”¹⁴

IV. PASSAGE OF THE WORTH COUNTY RURAL HEALTH AND FAMILY FARM PROTECTION ORDINANCE

A. Large Hog Confinements Come to Worth County

Worth County, Iowa is a county of about 7,800 residents in a rural section of northern Iowa bordering Minnesota. Agriculture in the county largely consists of corn and soybeans. The largest town, Northwood, has about 2,100 residents. The County Board of Supervisors is comprised of three members. The sole physician on the Worth County Board of Health is Dr. Stephanie Seemuth. She is an osteopathic physician and Worth County resident. She has served on the Worth County Board of Health for more than 20 years. Dr. Seemuth championed the CAFO ordinance and remains an ardent supporter of CAFO regulation.

In the spring of 1999, a group of Worth County citizens became concerned when they learned that Jan and Ivona Miszewski, owners of Indigo Farm north of Clear Lake, Iowa, purchased four acres of land to build a “feeder-to-finish” hog operation north of Hanlontown, IA.¹⁵ A group of about thirty people picketed the Miszewski home.¹⁶ The local newspaper, the *Globe-Gazette*, covered the event. The day after the story about the picket appeared, the *Globe-Gazette* ran another story entitled “Hog farm owner: We will build”¹⁷ and an opinion piece defending the Miszewski’s business practices entitled “Hog facility not expected to be a bad neighbor.”¹⁸

Several months later in the summer of 1999, Dr. Seemuth attended a small town function where she was approached by a group of people concerned about a neighbor’s plans to build a CAFO.¹⁹ According to Dr. Seemuth, the group asked if there was

anything the Board of Health could do to mitigate smells and water contamination, since they felt that the State would not adequately regulate the proposed CAFO.²⁰

Dr. Seemuth took the concerns seriously but wanted to validate the health effects of CAFOs prior to taking any action. She set about researching the health effects of CAFO air emissions and water contamination and became very concerned about the possible health and environmental impacts of CAFOs.

In September of 1999, the *Globe-Gazette* reported on another hog confinement operation being built by John C. Kelso, a local farmer who had farmed hogs in the area for years in “traditional-sized buildings.”²¹ Mr. Kelso had entered into a seventeen-year contract²² with Christenson Family Farms, a large hog producer, to house 624,000 pounds of hogs or 4,160 head at 150 pounds each in two buildings 100 yards from Mr. Kelso’s home.²³ “[Mr.] Kelso[] [was] just under the 625,000-pound limit that would have required Department of Natural Resources’ approval for the construction plan”²⁴ Under Iowa law, he was required to submit a manure management plan to the Iowa Department of Natural Resources, but not the more rigorous construction plan.²⁵

When asked by a reporter about the neighbors’ concerns as to the potential odor from the new facilities, Mr. Kelso said, “There won’t be any smell.”²⁶ The proximity to Mr. Kelso’s home is important to note, since one of the disincentives to odor control is the fact that “[m]ost often upper management and many of the workers in such operations do not come from or live in the vicinity of . . . [CAFOs].”²⁷

Then County Attorney Belville, the nephew of Dr. Seemuth, came out publicly against Mr. Kelso’s confinement operation because of its close proximity to the

construction site of the Top of Iowa Welcome Center. In an email to the *Globe-Gazette* he wrote: “With the site where it is, a slight breeze from the right direction will be sending that stench right into our new welcome center. ‘Welcome to Iowa, please hold your nose.’”²⁸ According to the *Globe-Gazette*, County Attorney Belville “admit[ed] he has no jurisdiction in the matter, . . . [but] indicated he and Seemuth will explore avenues to fight Kelso’s hog confinement.”²⁹

B. Request for a Preliminary Injunction

On September 23, 1999, the Worth County Board of Health filed a request for a temporary injunction to halt the further construction of Mr. Kelso’s two hog confinement buildings and the stocking of Mr. Miszewski’s Indigo Farms.³⁰ Indigo Farms had entered into a ten-year contract to raise hogs for the hog producer Pork Plus.³¹ The temporary injunction was requested to run until April 1, 2000 to give the Worth County Board of Health time to “write rules and regulations for facilities of 500 animals or more.”³²

The Worth County Board of Health’s temporary injunction request drew sharp criticism from the Worth County Farm Bureau (the local chapter of the Iowa Farm Bureau—a powerful statewide association of farmers). The Worth County Farm Bureau told the press:

After conferring with Judge Steven Carroll and reviewing the district court documents, it is apparent the Worth County Board of Health is preparing to put all hog producers in Worth County out of business.

The Worth County Farm Bureau is gravely concerned for the livelihood of all farmers raising pigs regardless of size. We are considering all of our options. ³³

The Farm Bureau framed the as-yet-to-be-drafted ordinance as a “500-animal limit.”³⁴ Iowa Farm Bureau Region 3 Manager Brian Thilges told the press that such a “limit” would “threaten ‘almost everyone that raises hogs for a living.’”³⁵

The Worth County Farm Bureau attempted to intervene in the county’s request for a temporary injunction against Mr. Kelso’s and Mr. Miszewski’s CAFOs. The Bureau eventually withdrew its motion.³⁶ By the time arguments for the request for a temporary injunction were heard, both CAFOs had been fully stocked.³⁷

Attorney General Tom Miller commented publicly on Worth County’s request for a preliminary injunction saying, “I think it would be difficult to do that in general terms, but sometimes there are creative legal arguments or arguments that haven’t been made before that sometimes turn out to be successful. So I certainly wouldn’t say they shouldn’t try.”³⁸

On February 9, 2000, the request for a temporary injunction was denied in Worth District Court on the basis that the criteria necessary to grant a temporary injunction had not been met.³⁹ The decision, however, did not rule on the issue of whether or not the Board of Health had authority to regulate CAFOs.⁴⁰

C. An Ordinance is Proposed and Passed

In the Fall of 1999, after the Board of Health’s failed attempt to obtain a temporary injunction against the two existing CAFOs in the county, the Board of Health drafted and formally proposed the “Worth County Rural Health and Family Farm Protection Ordinance” to the Worth County Board of Supervisors. At the time the Board

of Supervisors was comprised of Beverly Pangburn, Dorothy Hanna and Richard Holstad. Supervisor Holstad was also a member of the Board of Health.

The ordinance sought to regulate air and water quality in and around animal feeding operations.⁴¹ The final ordinance had three main components: (1) regulation of “odorous air contaminants or toxic air emissions” that “degrade air quality” by CAFOs; (2) indoor air quality standards to protect CAFO workers; and (3) county mandated installation of “underground water monitoring wells to monitor for contaminants according to [United States] Environmental Protection Agency standards.”⁴²

The initial hearing on the ordinance in September of 2000 drew a crowd of about ninety people. Dr. Seemuth described the early ordinance hearings as very “volatile.”⁴³ Among other concerns, hog producers in the county were concerned about the cost of compliance and public input led to some revisions. The revised ordinance was proposed to the Board of Supervisors in October 2000, at which time a group of citizens calling themselves “Worth County Concerned Citizens” presented the Board of Supervisors with a petition signed by approximately 550 Worth County residents in support of the ordinance.⁴⁴

According to Dr. Seemuth (and reflected in the voting record of the Board of Supervisors), Supervisors Beverly Pangburn and Dorothy Hanna originally were opposed to the ordinance. Supervisor Holstad, a member of the Farmers Union, which is a progressive farmers organization that promotes sustainable practices, and member of the Worth County Board of Health, was adamantly in favor of the ordinance. County-wide elections held in November 2000 changed the composition of the Board of

Supervisors, effective January 1, 2001, by unseating Supervisor Holstad and replacing him with Mr. Darrell Bang of Joice, IA.

Another hearing on the ordinance was held at the end of November but no vote was taken on the ordinance. On November 27, 2000, the Board of Supervisors voted down the ordinance by a vote of two-to-one. Another hearing was held in December, at which time the Board of Supervisors voted to table the ordinance and appoint an eleven-member committee, including local hog producers, to redraft the ordinance by April 30, 2001. The Advisory Committee served as a compromise whereby the Board of Supervisors and the Board of Health each suggested five people, with Dr. Seemuth as Chair of the committee. The Advisory Committee met every Tuesday night from February to April.

According to Dr. Seemuth, there were no attorneys on the Advisory Committee. And while the County Attorney had advised her that the Board of Health had to regulate within the authority of county government, there was very little substantive input from any attorneys during the revision process of the ordinance. According to Dr. Seemuth, the ordinance was “totally citizen drawn up” and throughout the revision process the “gist” of the ordinance never changed.⁴⁵

Dr. Seemuth researched other counties’ attempts to regulate CAFOs (including Humboldt County) and approaches in other states, such as Kansas and Michigan. She was encouraged by Attorney General Miller’s comments to the *Des Moines Register* that innovative county laws may pass muster in the courts. She had also heard that the Attorney David Vestal, Deputy Director of the Iowa State Association of Counties, did

not feel the Worth County ordinance could withstand a legal challenge but said she had no direct communication with him about the issue.⁴⁶

The most significant change to the ordinance over the course of the hearings and committee meetings was a change in the cost burden of testing and compliance. The ordinance initially placed the entire cost of air quality, water testing and health testing of employees on hog producers. Under the final ordinance, the county would pay for initial air quality testing upon receipt of a complaint, with producers paying for tests related to subsequent violations. The cost of water quality testing and CAFO worker testing remained with the hog producer.

After three additional required public hearings, the revised ordinance was passed into law in July of 2001. One month later, a lawsuit was filed challenging the ordinance under the doctrine of preemption.⁴⁷ The Worth County District Court invalidated the ordinance in February of 2003.⁴⁸ The Worth County Board of Supervisors decided to appeal the decision to the Supreme Court of Iowa in October of 2004. The Iowa Supreme Court struck down the ordinance under the doctrine of express preemption.⁴⁹

V. POLICY AND LEGAL CHALLENGES

As chronicled above, there were numerous well-attended public hearings to receive public comment on the ordinance. The controversy also received consistent local, state and regional media coverage. When asked when she first became aware of a legal challenge to the Board of Health, Dr. Seemuth said:

. . . right from the very start the lines were drawn. The injunction was opposed by the Farm Bureau and the so-called [Worth County] Friends of Agriculture, which were individual people . . . Eldon McAfee, who is the

legal counsel for the Farm Bureau, was the one who brought the objection to the injunction for them . . . it was right from the start that it was legally challenged.⁵⁰

Attorney Charles Cutler, who defended the ordinance in court, echoed Dr. Seemuth’s sentiment: “It was clear to me from the beginning that this would be a battle that would end up at the Supreme Court before the ordinance ever went into effect.”⁵¹

Likewise, when the ordinance was passed into law Supervisor, Pangburn commented: “[the ordinance] will probably be tested in the courts, . . . We know litigation will come. We are setting the standard. I would like to set the rules rather than the state or federal government,’ she said. ‘It’s been difficult for all three of us to make this decision.’”⁵²

A. The Opposition

The Iowa Farm Bureau and its local chapter, the Worth County Farm Bureau, were the driving force behind the legal challenge. Founded in 1918, the Iowa Farm Bureau consists of 153,000-member families and describes its work as follows: “The organization’s services, programs and benefits are developed based on the causes, concerns and needs important to members based on their beliefs and values – from leadership development, savings on preventative health care services and farm marketing seminars to programs to help young farmers thrive and prosper.”⁵³

“Worth County Friends of Agriculture” was formed in opposition to the Worth County CAFO ordinance. Individual members included Ronald Balek, Lynn Butler, Vernon Gordon, Ted Lawyer, Dean Lindflott, and Douglas Tempus. Mr. Tempus spoke out publicly against the ordinance at public meetings and private forums on the issue.

Attorney Eldon McAfee of Beving, Swanson & Forrest, P.C. represented plaintiffs in both the preliminary injunction case and the motion for declaratory judgment against the ordinance.

B. Policy Arguments

Dr. Seemuth summarized the opposition's major concerns as fear of: (1) the potential financial burdens associated with ordinance compliance to producers who want to put up hog barns, and (2) concerns that there was not enough scientific evidence to prove the health effects of CAFOs. Other policy arguments included the dangers of economic protectionism, concerns that the regulations amounted to an affront to the rural way of life and fears of uneven enforcement with little due process.

1. Cost of Compliance

The ordinance initially placed the entire cost of well monitoring, water testing and health testing of employees on hog producers. Producers' concerns seemed to rise when the Board of Health was unable to quantify the costs of complying with the proposed ordinance.⁵⁴ Under the final ordinance the county would pay for initial air quality testing upon receipt of a complaint, with producers paying for air quality tests related to subsequent violations.⁵⁵ The cost of water quality testing and health-related worker testing remained with the hog producer.

2. Lack of Evidence of Health Effects

Maintaining seeds of doubt about the human health effects of CAFO emissions or odors was a strategy employed by the opposition. An editorial run in the *Omaha Nebraska World Herald* argued against local control of CAFOs: "There are, without

doubt, health implications to the hog operations, at least for workers. Problems for neighbors of the hog lots are more difficult to pin down, but officials should keep a sharp eye on the issue.”⁵⁶ Dr. Seemuth played a vital role in responding to doubts about the human health effects of CAFOs from the very beginning of the controversy. She prepared a detailed affidavit in support of the initial request for a preliminary injunction, citing a range of studies about the adverse health effects of CAFOs that was linked to an online *Globe-Gazette* article about the controversy.⁵⁷ Dr. Seemuth also spoke regularly to the public about the health effects of CAFOs.⁵⁸

3. Economic Protectionism

Economic protectionism is a common theme of threats against local attempts to regulate CAFOs. In essence, the argument frames attempts at local regulation as simply a Trojan horse to prevent new agro-businesses from coming into an area that would compete with existing local producers. Christopher Novack, Special Assistant to the CEO of the American Soybean Association, wrote in a 2000 law review article (the only law review article cited by the Supreme Court of Iowa in the *Worth County Friends of Agriculture* decision) that “county regulations grounded in economic protectionism and parochialism erect barriers that will limit the business opportunities for new or young farmers.”⁵⁹ Indeed the title of Worth County’s ordinance, “Worth County Rural Health and Family Farm Protection Ordinance,” and public comments made by community members opposed to CAFOs may have reinforced this perception. For example, Hanlontown, IA resident Jim Rice was quoted as saying, “It is clear factory farms are

eliminating true family farms.”⁶⁰ And an anti-CAFO advocate stated to the press: “We are . . . against all contract farming.”⁶¹

4. Affront to the Rural Way of Life

Both sides of the controversy exploited arguments centered on preserving the “rural way of life.” Opponents of CAFO regulation saw the ordinance as an attempt to bar farmers from operating in the county: “The Worth County Farm Bureau sees the Worth County Board of Health injunction request last week as an attempt to put all hog producers in the county out of business.”⁶² Supporters of local regulation argued that CAFOs were ruining the quality of life in the county. County Attorney Chad Belville told the press “[Kelso] is being backed by Christianson Farms, a huge company that has hog lots all across the country. They aren’t concerned with local quality of life and the local environment.”⁶³ Attorney Belville also gave a speech stating “I believe that the actions of these large-scale hog factories have been an assault on our way of life . . . They place our water supplies in constant jeopardy and significantly decrease the land values of their neighbors, threatening their neighbors’ financial stability and futures.”⁶⁴ Local resident, David Brunsvold, in comments to the *Globe-Gazette*, looked at the issue from a different perspective: “If we’re going to stop everything like that [CAFOs], we’re eating away at what made Iowa strong in the past.”⁶⁵

5. Fear of Uneven Enforcement of the Law

The ordinance also led to fears about uneven enforcement of the law with little due process for hog producers:

Jim Neel, an area hog farmer, “said the way the ordinance was written, all somebody had to do was say ‘that stinks,’ and his hog operation would be susceptible. Doug Tempus, another hog producer, agreed with Neel. Tempus said, if he’s hauling manure for field application according to his approved manure management plan it would only take one person to say, ‘yeah, it stinks,’ and everything he and his father-in-law had worked for a lifetime would go down the drain.”⁶⁶

These fears seemed to be rooted in the realities of living in a small community where one has to deal with neighbors: “Dwayne Christiansen . . . warned the rules would give new residents not familiar with agricultural odors a foothold to bring action against family farmers. ‘If there is someone who lives within a four-mile radius who has a grudge against you, he has an avenue to get back at you and shut you down.’”⁶⁷

C. Legal Arguments

Under Iowa law, counties are expressly preempted by state law from zoning agricultural land and structures.⁶⁸ In 1996, Humboldt County, IA attempted to regulate CAFOs. Its ordinances were litigated all the way to the Supreme Court of Iowa where they were overturned in *Goodell v. Humboldt County*.⁶⁹ The ordinances consisted of a permit requirement for CAFOs; a financial security requirement; groundwater protection policies and regulation of toxic air emissions.⁷⁰ In *Goodell*, the plaintiffs argued that the ordinances were unlawful zoning laws preempted by state law. Humboldt County argued that the ordinances were passed pursuant to its constitutionally granted home rule authority and police power. In 1998, the Iowa Supreme Court ruled that while the ordinances were not zoning laws, all four ordinances were in direct conflict with Iowa agriculture laws and it struck the ordinances down under the doctrine of express preemption.⁷¹ According to Humboldt County Supervisor,

Harlan Hanson, the Humboldt County Attorney refused to litigate the case against the ordinance “so it ended up costing taxpayers \$110,000.”⁷²

On May 21, 1998, shortly after the *Goodell* decision, then Republican Governor Jim Ross Lightfoot signed into law House File 2494, which contained a provision expressly preempting county governments from regulating CAFOs altogether. House File 2494 taken together with the *Goodell* decision sent a strong message to county officials that regulation of CAFOs should be left to state government.

That same year, however, Tom Vilsack, shortly after being sworn into office as Iowa State Governor, came out publicly in support of granting counties local control of the siting of CAFOs.⁷³ The Iowa Environmental Protection Commission did not endorse Mr. Vilsack’s legislation granting local control over CAFOs.⁷⁴ Mr. Vilsack has since been appointed as Secretary of Agriculture for the Obama administration.

1. Preemption

Against this legal and political backdrop, the Worth County Friends of Agriculture argued that the county was expressly preempted (prohibited) from regulating CAFOs by Iowa Code section 331.304A. Passed shortly after the *Goodell* decision, section 331.404A (the codified version of House File 2494 mentioned above) provides that “[a] county shall not adopt or enforce county legislation regulating a condition or activity occurring on land used for the production, care, feeding or housing of animals unless . . . [such regulation] . . . is expressly authorized by state law.”⁷⁵ This technical legal argument was framed as a lack of county authority to regulate CAFOs in the public discourse.

While Dr. Seemuth did not recall any attorneys opposed to the ordinance in attendance at public hearings, she did recall that “[i]t was often asked, ‘Where do you get the authority to do this?’”⁷⁶ Dr. Seemuth’s standard reply was that the Board of Health had authority under the Code of Iowa section governing the authority of county Boards of Health to propose ordinances to protect the public health. The following exchange recorded in the *Globe-Gazette* summarizes the general concern about the lack of county authority to regulate CAFOs:

Worth County Supervisor Beverly Pangburn got right to the heart of the matter at a Monday night hearing on the Worth County Board of Health’s proposed ordinance for hog confinements.

Her concern is that the board of health’s efforts to regulate large factory farms is an exercise in futility, since the last attempt at local control—by Humboldt County—was shot down by the Iowa Supreme Court.

“Will this ordinance pass statutory and state law?” she asked Worth County Attorney Chad Belville.

“We wouldn’t be here if we didn’t think it would pass muster” Belville said. Then he explained that there would be no cost to the county for lawyers because he, as legal counsel to the Board of Health, would handle any future challenge in the courts.

Brad Petersburg, a Hanlontown area farmer, doesn’t think such a statute will hold up. “I think the county will be spending a lot of money in the courts, and for lawyers,” Petersburg said. Petersburg is the farmer who sold land to Jan Miszeski last year in Hanlontown, for a large hog confinement operation that was stocked earlier this year.⁷⁷

Dr. Seemuth tried to allay concerns about the Board of Health’s authority to regulate at a subsequent meeting: “Seemuth began . . . by saying it had sought outside legal counsel and ‘we are constitutionally correct. Correct with the code of Iowa.’ The regulations had

been compared to previous ordinances that have been struck down, she said, and Worth County's were 'not in conflict with any other state regulations.'"⁷⁸

Despite Dr. Seemuth's assurances, the ordinance was originally voted down. Supervisor Beverly Pangburn was quoted as saying, "[i]t's probably the hardest and most difficult vote in all my years as a supervisor' . . . [the] ordinance would not survive state law banning local control and stand up to a test in the courts."⁷⁹ Explicit threats of litigation were made after the revised ordinance was introduced to the Board of Supervisors. At the first reading of the ordinance, Mr. Tempus, one of the eventual plaintiffs against Worth County, ". . . told the supervisors that if passed, the ordinance would result in litigation challenging the authority of the board of health to impose the standards."⁸⁰

VI. LITIGATION

About one month after the ordinance was enacted, the Worth County Friends of Agriculture filed suit seeking to invalidate the Worth County ordinance. County Attorney Belville resigned several months into the litigation.⁸¹ At that point, Attorney Charles Cutler of the Cutler Law Firm, P.C. in West Des Moines, IA stepped in to serve as pro bono private legal counsel for the county. Attorney Cutler originally got involved in the dispute early on when a group of individuals neighboring the property where a proposed CAFO was going to be built approached him for help.⁸² Attorney Cutler said he "really identified with their position and their situation" and met with them on a monthly basis to provide them guidance about what they could and could not do legally to prevent the CAFO from being built.⁸³ Prior to his formal appointment as counsel to

the County, Attorney Cutler said that he had no input into the actual drafting of the ordinance, but did talk to Dr. Seemuth about the process the Board of Health would have to follow in order to pass an ordinance into law.⁸⁴

The plaintiffs, in the Worth County case, argued that Worth County was prohibited or expressly preempted from regulating CAFOs by Iowa Code section 331.304A prohibiting local regulation.⁸⁵ The District Court ruled in favor of the plaintiffs and invalidated the ordinance. The Court found that Iowa Code section 331.304A was constitutional and that the law expressly preempted Worth County's ordinance.⁸⁶

There were a number of considerations involved in the County's decision to appeal the District Court order. The cost of the appeal was a primary concern. According to news reports, prior to the appeal, the lawsuit cost the County approximately \$17,500.⁸⁷ At a Board of Supervisors meeting, a plaintiff in the lawsuit, Mr. Tempus, told the Board of Supervisors, "I am here to ask the supervisors not to appeal this ruling. We've spent enough money on this issue. The court has decided. Now it's time to let us, the family farmers, continue to farm."⁸⁸ Dr. Seemuth spoke in favor of an appeal: "This is a health ordinance drafted through a democratic process . . . I believe strongly that we need to continue with this ordinance."⁸⁹ Another supporter of the ordinance, Jim Rice, felt that it was important that Worth County appeal the decision because the county had taken a "leadership role in enacting this landmark ordinance and the entire state is watching."⁹⁰

Legal-minded watchers of local efforts to regulate CAFOs were concerned about the finality of an Iowa Supreme Court decision. By 2003, in addition to Worth County, there were three other Iowa counties with CAFO-related health regulations and seven counties with animal confinement moratoria in place.⁹¹ David Vestal, then Deputy Director of the Iowa State Association of Counties summarized the issue:

At the time of this writing, Worth County was looking seriously at appealing the decision to the Iowa Supreme Court. The stakes would become higher at that point—this decision is not technically binding on other counties, whereas an Iowa Supreme Court decision would be. . . . This decision, though not unexpected, raises serious concerns about the existing confinement-related health regulations in three other counties. It also raises concerns about the animal confinement moratoria in place in seven Iowa counties. The decision does not tell us anything about county home rule that we did not already know. But it does point out how counties do not have any good options when it comes to regulating livestock facilities.⁹²

Ultimately, the County decided to appeal the ruling to the Supreme Court of Iowa.

The Worth County Board of Supervisors considered asking for financial help from the other counties that had adopted similar CAFOs ordinances subsequent to Worth County’s ordinance, since the legal decision would be binding on all counties statewide.⁹³ While Attorney Cutler originally represented the County on a pro bono basis, he was not in the position to handle the Supreme Court Appeal pro bono. Attorney Cutler charged the County a reduced fee. He was under the impression that “a group of people from the county basically passed a hat around” to raise money for his fee.⁹⁴ According to former Supervisor Holstad, the Farmers Union raised money for legal fees.⁹⁵

The agriculture industry followed the Worth County case closely, and according to Attorney Cutler, when the case was appealed to the Supreme Court, the Worth County Friends of Agriculture had “every major farm group lined up against [us]” as amici to the suit.⁹⁶ Amici against the ordinance consisted of: Iowa Farm Bureau Federation, Iowa Cattlemen’s Association, Iowa Pork Producers Association, Iowa Poultry Association, Iowa Dairy Products Association, Iowa Soybean Association, Iowa Institute for Cooperatives, Agribusiness Association of Iowa, Iowa Turkey Federation, Iowa State Dairy Association and the Iowa Corn Growers Association.⁹⁷

In its *Worth County Friends of Agriculture* decision, the Supreme Court of Iowa interpreted Iowa Code section 331.304A to mean that the “legislature intended livestock production in Iowa to be governed by statewide regulation, not local regulation. It has left no room for county regulation.”⁹⁸ The court rejected Worth County’s argument that its ordinance was a public health ordinance and therefore did not conflict with section 331.304A. Worth County also argued that section 330.304A was an unconstitutional abrogation of the County’s constitutionally granted home rule authority.⁹⁹ The court held that “[b]y enacting section 330.304A, the legislature has exercised its superior authority, expressly retained in the home-rule amendment, to preempt county regulation of livestock confinement facilities.”¹⁰⁰ The court struck down the ordinance in its entirety, holding that Iowa state law prohibiting local regulation of CAFOs was constitutional and expressly preempted Worth County’s ordinance.¹⁰¹

VII. DISCUSSION OF IMPACT OF THREAT AND LITIGATION ON PUBLIC HEALTH INITIATIVE

From a strictly legal perspective, the impact of the Worth County litigation is that there is now a clear Iowa Supreme Court decision binding on all counties interpreting Iowa state law to prohibit local Boards of Health and, by extension, every form of local government from regulating CAFOs.

When placed in the context of a local, state (and even national) public health and environmental protection efforts to address the adverse effects of CAFOs, some benefits of the Worth County litigation emerge. The 1998 *Goodell* decision and subsequent state law preempting all county regulation of CAFOs were major blows to local control over CAFOs in Iowa. Worth County's attempt to regulate CAFOs pursuant to its public health authority reinvigorated county efforts to exert local control to mitigate the effects of CAFOs on the public health, air and water quality. By 2003, in addition to Worth County there were three other counties with CAFOs-related health regulations and seven counties with animal confinement moratoria in place.¹⁰²

As other counties contemplated similar ordinances, a potential rift amongst Iowa Farm Bureau membership with respect to local control over CAFOs developed.¹⁰³ In August of 2001, the *Globe-Gazette* reported that Floyd County Farm Bureau (also located in Northern Iowa) President Vince Rottinghaus resigned after "charging that the organization's board had not provided members with a balanced view of a proposed county ordinance regulating livestock confinements."¹⁰⁴ Floyd County was contemplating a Worth County-style CAFO ordinance. The local Floyd County Farm Bureau had polled its membership about the Worth County ordinance. When asked "if

they favored the Worth County ordinance[,] Rottinghaus said 69 members said ‘yes,’ 40 said ‘no’ and 52 offered no opinion.”¹⁰⁵ But when asked whether they favored local CAFO control, “the response was an overwhelming 144 to 40 in favor”¹⁰⁶ Rottinghaus summarized the apparent rift: “So here you have your Farm Bureau membership in Floyd County saying they want the ordinance...[a]nd the Farm Bureau is fighting it in another county. Farm Bureau is supposed to follow the wishes of the membership.”¹⁰⁷

According to Dr. Seemuth, the practical effect of Worth County’s efforts has been that “[w]e do not have that many confinement operations in the county simply because the big corporations . . . have been . . . discouraged from coming in here because the citizens of this county really don’t want them The last one that tried to come in and put one in was so soundly thumped in public that they decided not to.”¹⁰⁸ Former Supervisor Holstad also commented that ironically, several years after the ordinance was overturned, a group of residents that had opposed the ordinance organized in opposition to a CAFO that wanted to open near their homes.¹⁰⁹ The group organized a petition drive and the CAFO was never built.¹¹⁰

VIII. LESSONS LEARNED

The importance of a well-informed and committed champion of an issue was evident throughout this case study. As a practicing physician, county resident and Board of Health Member for over twenty years, Dr. Seemuth had the community connections and the public health knowledge to lead the County’s efforts. Advocates of the ordinance were also able to leverage the media attention and public interest

garnered by the ordinance debate, to educate the public about the adverse health effects of mismanaged CAFOs. The community education undertaken by proponents of local control of CAFOs helped to refocus the public discourse from economic protectionism to protection of the public health. This case study also illustrates how bold policy action at the local level, even when overturned in court, can be used to set community standards and support public health goals.

The lack of legal input into the drafting of the ordinance certainly did not help its prospects for withstanding a legal challenge. Involving an attorney with expertise in Iowa State agricultural law who was willing to think creatively about regulating CAFOs pursuant to county public health authority early on would have benefited the effort. The grassroots nature of the ordinance did, however, advance democratic principles. Rural communities have often felt invaded by large-scale livestock producers and “the legislative process in many states has often been unresponsive to citizen wishes concerning CAFOs.”¹¹¹ The transparent nature of the Board of Supervisors meetings and the Citizen Advisory Committee meetings, which directly involved residents, public health officials and farmers gave citizens an opportunity to have their voices heard.

This case study also illustrates the importance of placing a public health effort in a broader context and having the willingness to stay committed to an issue for a long period of time. For example, Supervisor Holstad said that even though Worth County is one of the smallest counties in Iowa and they lost in court, CAFOs “are a little bit reluctant to be in this county anymore,” which in his mind is a victory.¹¹² Supervisor

Holstad saw the ordinance controversy as part of the larger struggle against CAFOs and believes that the time will come when CAFOs are properly regulated.¹¹³

POSTSCRIPT: *GACKE V. PORK XTRA, LLC*

While current Iowa law still expressly preempts counties from regulating CAFOs, the same year *Worth County Friends of Agriculture* was decided, the Supreme Court of Iowa restored the common law right of individuals to sue agricultural operations under the theory of nuisance. Iowa Code 657.11(2) grants agricultural operations immunity from nuisance suits and has been in effect since 1995. The Supreme Court of Iowa decision *Gacke v. Pork Xtra, L.L.C.* invalidated the nuisance immunity statute as an unconstitutional violation of the State Constitution “takings clause” and an oppressive exercise of the State’s police power.¹¹⁴ While the *Gacke* decision was at its core a legal victory for Iowans in favor of heightened CAFO accountability, state and federal regulation of CAFO emissions remains lax to non-existent. The combined effect of the *Goodell*, *Worth County Friends of Agriculture* and *Gacke* decisions has been to place the burden on individual property owners to bring costly and time consuming common law nuisance suits against neighboring CAFOs in order to be compensated for the harms they cause.

RESEARCH METHODOLOGY

The Project utilized descriptive case study methodology to examine instances of state and local public health legislation that was opposed with legal rhetoric or faced a direct legal challenge. Descriptive case study methodology is designed to present a complete description of a case within its context. The descriptive case study technique was selected because of the lack of prior research on the issue of defensive public health litigation and the resulting lack of established theory in the area. The primary unit of analysis for each study was the proponent of the public health initiative. Background research for each case study included local and national media coverage, legislative and/or administrative documents, documents generated by the opposition, scholarly articles, legal filings and judicial opinions. A minimum of two in-depth telephone interviews were conducted for each case. Where possible, one interview was of a public health official, and one interview was with an attorney affiliated with the public health official. Given the resources available to conduct the studies interviews with opponents were not conducted.

¹ Iowa Pork Producers Association, Fact Sheets, <http://www.iowapork.org/ForConsumers/FactSheets/tabid/711/Default.aspx>, (last visited Nov. 25, 2009).

² Office of Water, U.S. Environmental Protection Agency, EPA 821-R-03-010, Producers' Compliance Guide for CAFOs at p. 8 (Nov. 2003), http://www.epa.gov/npdes/pubs/cafo_prod_guide_entire_doc.pdf (last visited Nov. 25, 2009).

³ William D. McBride & Nigel Key, Resource Economics Division, Economic Research Service, U.S. Department of Agriculture, AER-818, Economic and Structural Relationships in U.S. Hog Production at p. iii (Feb. 2003), <http://www.ers.usda.gov/publications/aer818/aer818.pdf> (last visited Nov. 25, 2009).

⁴ Iowa State University and The University of Iowa Study Group, *Iowa Concentrated Animal Feeding Operations Air Quality Study* at p. 28 (Feb. 2002), available at http://www.public-health.uiowa.edu/ehsrc/CAFOstudy/CAFO_final2-14.pdf (last visited Nov. 25, 2009).

⁵ Iowa Pork Producers Association, Fact Sheets, *supra* note 1.

⁶ David Osterberg, MS & David Wallinga, MD, *Addressing Externalities From Swine Production to Reduce Public Health and Environmental Impacts*, 94 AM. J. PUB. HEALTH 1703 (Oct. 2004).

⁷ William D. McBride & Nigel Key, Economic and Structural Relationships in U.S. Hog Production, *supra* note 3 at 34.

⁸ Telephone Interview with Richard Holstad, former Member, Worth County Board of Supervisors and Board of Health (Jan. 30, 2009) (hereinafter "Holstad Interview").

⁹ American Public Health Association, *Toward a Healthy Sustainable Food System* (Nov. 18, 2003), <http://www.apha.org/advocacy/policy/policysearch/default.htm?id=136> (last visited Nov. 25, 2009).

¹⁰ Osterberg & Wallinga, *supra* note 6 at 1703. See also Iowa's Center for Agricultural Safety and Health and Institute for Agriculture and Trade Policy, University of Iowa, *Concentrated Animal Feeding Operations: Public Health and Community Impacts* (Sep. 2002), http://www.ncrlc.com/CAFO_02.html (last visited Nov. 25, 2009).

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- ¹¹ Stacy Sneeringer, *Does Animal Feeding Operation Pollution Hurt Public Health? A National Longitudinal Study of Health Externalities Identified by Geographic Shifts in Livestock Production*, 91(1) AM. J. AGR. ECON. 124 (Feb. 2009).
- ¹² Osterberg & Wallinga, *supra* note 6 at 1705-1706.
- ¹³ Iowa State University and The University of Iowa Study Group, *Iowa Concentrated Animal Feeding Operations Air Quality Study*, *supra* note 4 at 138.
- ¹⁴ Iowa State Association of Counties, *2008 Legislative Priorities: 82nd General Assembly, 2nd Session* at 17, <http://www.iowacounties.org/News/Publications%20Information/2008PriorityBookFinal.pdf> (last visited Nov 25, 2009).
- ¹⁵ David Krotz, *Protesters picket against hog confinement plans*, GLOBE-GAZETTE, May 25, 1999.
- ¹⁶ *Id.*
- ¹⁷ David Krotz, *Hog farm owner: We will build*, GLOBE-GAZETTE, May 26, 1999.
- ¹⁸ Editorial, *Hog facility not expected to be a bad neighbor*, GLOBE-GAZETTE, May 26, 1999.
- ¹⁹ Telephone Interview with Stephanie Seemuth, D.O., Member, Worth County Board of Health (Jan. 23, 2009) (hereinafter “Seemuth Interview”).
- ²⁰ *Id.*
- ²¹ David Krotz, *Worth hog lot raises stink*, GLOBE-GAZETTE, Sep. 9, 1999.
- ²² David Krotz, *County Farm Bureau drops out of suit*, GLOBE-GAZETTE, Nov. 24, 1999.
- ²³ David Krotz, *Worth hog lot raises stink*, *supra* note 21.
- ²⁴ *Id.*
- ²⁵ *Id.*
- ²⁶ *Id.*
- ²⁷ Kelly J. Donham, et al., *Community Health and Socioeconomic Issues Surrounding Concentrated Animal Feeding Operations*, 115 ENVTL. HEALTH PERSP. 317 (2007).
- ²⁸ David Krotz, *Worth hog lot raises stink*, *supra* note 21.
- ²⁹ *Id.*
- ³⁰ David Krotz, *Board of health joins hog battle*, GLOBE-GAZETTE, Sep. 28, 1999.
- ³¹ David Krotz, *County Farm Bureau drops out of suit*, *supra* note 22.
- ³² David Krotz, *Board of health joins hog battle*, *supra* note 30.
- ³³ David Krotz, *Farm Bureau sees hog threat*, GLOBE-GAZETTE, Oct. 1, 1999.
- ³⁴ *Id.*
- ³⁵ *Id.*
- ³⁶ David Krotz, *County Farm Bureau drops out of suit*, *supra* note 22.
- ³⁷ *Id.*
- ³⁸ Kathie Obradovich, *Miller questions hog strategy*, GLOBE-GAZETTE, Oct. 2, 1999.
- ³⁹ David Krotz, *Hog complaints not worthy*, GLOBE-GAZETTE, Feb. 10, 2000.
- ⁴⁰ *Id.*
- ⁴¹ *Worth County Friends of Agriculture vs. Worth County, Iowa*, 688 N.W.2d 257 (Iowa 2004).
- ⁴² *Id.* at 260.
- ⁴³ Seemuth Interview, *supra* note 19.
- ⁴⁴ David Krotz, *Worth presents revised hog rules*, GLOBE-GAZETTE, Oct. 17, 2000.
- ⁴⁵ Seemuth Interview, *supra* note 19.
- ⁴⁶ *Id.*
- ⁴⁷ *Worth County Friends of Agriculture*, 688 N.W.2d at 260.
- ⁴⁸ Kristin Buehner, *Counties disagree with ruling*, GLOBE-GAZETTE, Feb. 25, 2003.
- ⁴⁹ *Worth County Friends of Agriculture*, 688 N.W.2d at 260.
- ⁵⁰ Seemuth Interview, *supra* note 19.
- ⁵¹ Telephone Interview with Charles Cutler, Attorney, Cutler Law Firm, P.C. (Feb. 5, 2009) (hereinafter “Cutler Interview”).
- ⁵² David Krotz, *Livestock production rules given final OK in Northwood*, GLOBE-GAZETTE, July 10, 2001.
- ⁵³ Iowa Farm Bureau, *We Are the Iowa Farm Bureau*, <http://www.iowafarmbureau.com/who.aspx> (last visited Nov. 25, 2009).

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- ⁵⁴ David Krotz, *Worth board, farmers are at odds over proposed health regulations*, GLOBE-GAZETTE, Sep. 8, 2000.
- ⁵⁵ David Krotz, *Worth presents revised hog rules*, *supra* note 44.
- ⁵⁶ Editorial, *Getting Proper Control of Hog Lots*, OMAHA WORLD HERALD (Nebraska) Dec. 4, 2000 at 10.
- ⁵⁷ David Krotz, *Board of health joins hog battle*, *supra* note 30.
- ⁵⁸ David Krotz, *Boards unite against hog lots*, GLOBE-GAZETTE, Dec. 10, 1999; *Forum: Are there rural health risks associated with large hog confinement operations?*, GLOBE-GAZETTE, Feb. 18, 2001.
- ⁵⁹ Christopher A. Novak, *Agricultures New Environmental Battleground; The Preemption of County Livestock Regulations*, 5 DRAKE J. AGRIC. L. 429 (Winter 2000).
- ⁶⁰ David Krotz, *Residents blast big confinement lots*, Globe-Gazette, Mar. 5, 2000.
- ⁶¹ David Krotz, *Hog farm owner: We will build*, *supra* note 17.
- ⁶² David Krotz, *Farm Bureau sees hog threat*, *supra* note 33.
- ⁶³ David Krotz, *Worth hog lot raises stink*, *supra* note 21.
- ⁶⁴ David Krotz, *Board of health joins hog battle*, *supra* note 30.
- ⁶⁵ David Krotz, *Worth hog lot raises stink*, *supra* note 21.
- ⁶⁶ David Krotz, *Worth board, farmers are at odds over proposed health regulations*, *supra* note 54.
- ⁶⁷ David Krotz, *Worth board rejects hog lot regulations*, GLOBE-GAZETTE, Dec. 12, 2000.
- ⁶⁸ See Iowa Code § 335.2 (2009).
- ⁶⁹ *Goodell v. Humbolt County, IA*, 575 N.W.2d 486, 489 (Iowa 1998). For a comprehensive analysis of the *Goodell* decision and its impact on local CAFO regulation in Iowa see, Jennifer K. Bower, Comment, *Hogs and Their Keepers: Rethinking Local Power on the Iowa Countryside*, 4 GREAT PLAINS NAT. RESOURCES J. 261 (2000).
- ⁷⁰ *Goodell v. Humbolt County, IA*, 575 N.W.2d at 489.
- ⁷¹ *Id.* at 507-508.
- ⁷² David Krotz, *Worth board, farmers are at odds over proposed health regulations*, *supra* note 54.
- ⁷³ Kathie Obradovich, *Vilsack supports local control*, GLOBE-GAZETTE, Jan. 22, 1999.
- ⁷⁴ Kathie Obradovich, *Commission won't support Vilsack over hog lot control*, GLOBE-GAZETTE, Dec. 21, 1999.
- ⁷⁵ Iowa Code § 331.304A(2) (2009).
- ⁷⁶ Seemuth Interview, *supra* note 19.
- ⁷⁷ David Krotz, *Worth presents revised hog rules*, *supra* note 44.
- ⁷⁸ David Krotz, *Hearings set for law regulating hog lots*, GLOBE-GAZETTE, Nov. 28, 2000.
- ⁷⁹ David Krotz, *Worth board rejects hog lot regulations*, *supra* note 67.
- ⁸⁰ Kristin Buehner, *Worth County rural health ordinance passes on first reading*, GLOBE-GAZETTE, MAY 30, 2001.
- ⁸¹ Jan Horgen, *Worth County attorney resigns*, GLOBE-GAZETTE, May 24, 2002.
- ⁸² Cutler Interview, *supra* note 51.
- ⁸³ *Id.*
- ⁸⁴ *Id.*
- ⁸⁵ *Worth County Friends of Agriculture*, 688 N.W.2d at 262 (citing Iowa Code § 331.304A(2)).
- ⁸⁶ *Worth County Friends of Agriculture v. Worth County, IA*, Equity Order No. EQCV011065 (Feb. 20, 2003).
- ⁸⁷ Jan Horgen, *Worth supervisors ponder appeal of ruling voiding health ordinance*, GLOBE-GAZETTE, Mar. 11, 2003.
- ⁸⁸ *Id.*
- ⁸⁹ *Id.*
- ⁹⁰ *Id.*
- ⁹¹ David Vestal, *Worth County Health Ordinance Ruling Based on State Preemption Statute*, 32 THE IOWA COUNTY 7 (Apr. 2003).
- ⁹² *Id.*
- ⁹³ Jan Horgen, *Worth supervisors ponder appeal of ruling voiding health ordinance*, *supra* note 87.
- ⁹⁴ Cutler Interview, *supra* note 51.

⁹⁵ Holstad Interview, *supra* note 8.

⁹⁶ Cutler Interview, *supra* note 51.

⁹⁷ *Worth County Friends of Agriculture*, 688 N.W. 2d at 258.

⁹⁸ *Worth County Friends of Agriculture*, 688 N.W.2d at 264.

⁹⁹ *Worth County Friends of Agriculture*, 688 N.W.2d at 262, citing Sam F. Schiedler, *Implementation of Constitutional Home Rule in Iowa*, 22 Drake L. Rev. 294, 305 (1973).

¹⁰⁰ *Worth County Friends of Agriculture*, 688 N.W.2d at 265.

¹⁰¹ *Id.*

¹⁰² David Vestal, *Worth County Health Ordinance Ruling Based on State Preemption Statute*, *supra* note 91.

¹⁰³ Deb Nicklay, *Hog ordinance causes Farm Bureau rift*, GLOBE GAZETTE, Aug. 29, 2001.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ Seemuth Interview, *supra* note 19.

¹⁰⁹ Holstad Interview, *supra* note 8.

¹¹⁰ *Id.*

¹¹¹ Kelly J. Donham, et al., *Community Health and Socioeconomic Issues Surrounding Concentrated Animal Feeding Operations*, *supra* note 27.

¹¹² Holstad Interview, *supra* note 8.

¹¹³ *Id.*

¹¹⁴ *Gacke v. Pork Xtra, L.L.C.*, 684 N.W.2d 168 (Iowa 2004) (rehearing overruled by *Gacke v. Pork Xtra, L.L.C.*, 2004 Iowa Sup. LEXIS 222 (Iowa, July 30, 2004)).