

CAFOs and the Diminished Defense of Public Health

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CAFOs and the diminished defense of public health

Restrictions on nuisance lawsuits latest tool to prevent home-grown demand for stronger regulation of industry than offered by state law

By David Osterberg and James Merchant

In a legislative climate that increasingly bars local elected officials from protecting the health and financial security of Iowa residents, the means for individuals to respond on their own is threatened as well. The latest area: individuals challenging animal feeding operations in court.

Already, severe limitations prevent tougher regulation of animal feeding operations by cities and counties. Iowa Senate File 447 and a companion bill, House File 468, also seek to establish state law as a standard not to be challenged by local actions, but they take a different approach. The new approach is to tailor Iowa's nuisance law to limit "court actions involving an allegation of a public or private nuisance or the interference with a person's comfortable use and enjoyment of life or property caused by an animal feeding operation." The legislation limits damages that a neighbor may recover if harmed by a nearby operation, and further penalizes the neighbor who fails in court by requiring that he or she pay the operation's legal fees.

The new approach is to tailor Iowa's nuisance law to limit options for neighbors harmed by animal feeding operations.

The public health consequences of these legislative choices are as significant as the governance issues raised by the General Assembly to restrict options for those most affected by economic decisions while giving them no place to turn for redress if state policy is inadequate.

Why might a CAFO be a nuisance?

The impact of industrial farm animal production on human health implies more than an assessment of any disease, injury or impairment that may arise from exposure to livestock, livestock products or livestock production waste streams. Rather, health is defined by the World Health Organization as "a state of complete physical, mental and social well-being."¹ This definition of health is widely held in the developed world and is increasingly being adopted by American employers as they seek to enhance the health, productivity and well-being of their employees. It also is appropriate to apply this definition to those who are neighbors to the industrial production of livestock via concentrated animal feeding operations (CAFOs), a generic descriptor that will be used here to define animal feeding operations (AFOs) of any size (operations not meeting the USDA definition of CAFO). The WHO definition of health was used in the 2002 Iowa Study² requested by then Governor Tom Vilsack and by the Pew Commission on Industrial Farm Animal Production.³

When reviewing the public health impact of CAFOs on neighbors or a nearby community, health must be defined broadly because the question of harm involves the nature of home. Rural residents associate their family and home life as the center of their well-being as well as the place where they most need to enjoy, and are entitled to enjoy, a sense of health and security. Rural communities are similarly entitled to enjoy their public lands without unreasonable and substantial interference with their use and enjoyment and other legal rights common to the public. This common-sense observation is supported by the Iowa law of nuisance, Chapter 657.⁴ A nuisance claim, private or public, temporary or long-term, takes into account the fact that the homeowner and family members do indeed have a right to use, enjoy, and be comfortable in their home and community. Thus a claim for nuisance by CAFO neighbors or nearby community dwellers can involve reviewing issues and evidence of irritation, discomfort and annoyance in particular, as well as loss and enjoyment of one's property, home or community in general.

The broad definition of public health dovetails with the legal definition of nuisance. A nuisance claim involves an assertion that the conduct for which a defendant is responsible causes substantial and unreasonable impairment of a plaintiff's ability to use and enjoy their homestead, land or community public spaces. This impairment can include conduct and effects that cause material physical discomfort, irritation and significant annoyance. The impairment may rise to the level of a serious illness or injury, a medical condition, such as exposure to CAFO airborne pollution that causes or exacerbates asthma or obstructive lung disease. But the impairment should not have to rise to the severest level of injury in order to support a claim. If a defendant's conduct causes substantial and unreasonable irritation, material physical discomfort and significant annoyance — for example, if episodes of foul odor cross private or public property that make residents feel disgusted and offended — that may ground a claim even if there is no evidence of an associated medical condition or claim.

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Likewise, the Iowa Report, the Pew Report, and in an in-depth report for the Pew Commission on public and community health impacts of CAFOs⁵ used the worldwide accepted definition of health, which takes into account public health and community impacts. While not rising to the level of injuries that result in a trip to the doctor or hospital, these public health impacts are still significant enough to be accounted for and documented — so as to be evaluated, analyzed and published in the peer-reviewed literature. Complaints experienced and reported by a nuisance claimant, while not rising to the level of a medical diagnosed illness, allow a firsthand layperson to report their experience and sensation of irritation, mental and/or physical discomfort, and annoyance — for example, smelling a foul odor that is distasteful resulting in nausea. Likewise, if neighbors to a CAFO report that when the foul odor comes, they experience watery eyes, watery nose, headache, wheezing, chest tightness or shortness of breath, this is an indication of firsthand knowledge, sensations or experiences that they are competent to report. While there is a difference between acute, temporary physiological responses (material physical discomfort) to odorous emissions, and diagnosable medical conditions that may result from these same emissions, the difference between these adverse health effects arises only as the result of the concentration of CAFO exposures, the duration of CAFO exposures and individual susceptibility. Such complaints, whether temporary or long-standing, are highly consistent with the now extensive scientific literature compiled on CAFO exposures and adverse health effects.⁶

As discussed in both the Iowa Report and the Pew Report, airborne effluents from CAFOs are a complex mixture of gases, vapors, bioaerosols and particulates. Noxious gases and vapors are emitted from livestock facilities, manure pits and lagoons and from sites of land application. The hundreds of compounds in the soup of CAFO emissions include volatile organic compounds, vapors and gases, highly odoriferous volatile fatty acids, phenolic compounds, nitrogen-containing compounds, bioaerosols and particulates. Many of these agents are sensory and respiratory irritants. In combination, they are associated with both neurobehavioral symptoms including headache, anger, fatigue, malaise and confusion; and respiratory and eye mucus membrane symptoms including nasal, sinus, and eye irritation, coughing, wheezing, shortness of breath.⁷

Schiffman and colleagues at Duke University surveyed residents living close to swine CAFOs and control subjects not so exposed. All were residents of North Carolina and were matched according to gender, race, age and years of education.⁸ The study found, as measured by the scientifically accepted Profile of Mood States (POMS), that the CAFO exposed group had significantly more tension, more depression, more anger, less vigor, more fatigue, and more confusion than control subjects. Further, those exposed to swine odor also had more total mood disturbance than controls, as determined by POMS. Schiffman and colleagues then further summarized evidence and concluded that negative mood, stress, and environmental worry may lead to biochemical and physiological effects with subsequent health outcomes.⁹ Danish investigators using air dispersion model measures of ammonia as a proxy gas for rural odor of air pollution arising from animal biodegradable wastes, surveyed rural residents and found that 45 percent of respondents were annoyed by residential (in the home) odor pollution. Exposures were significantly associated with annoyance, health risk perception and behavioral interference preventing them from “properly ventilating their homes or performing outdoor activities.”

The impacts of CAFO exposures on the everyday lives of rural residents living within 1 1/2 miles of a swine CAFO are well-documented in several studies in CAFO-intensive eastern North Carolina^{10 11} Documented activities impacting “beneficial use of property” and “quiet enjoyment of life” included “working outside, growing vegetables, sitting outside, eating outside, gardening, playing, barbequing, use of well water, sleeping, opening doors and windows, hanging out with neighbors, having family and guests over, and drying laundry among others.”¹² The uncertainty of being able to plan outdoor activities was frequently cited as an added nuisance. Further studies of these North Carolina communities have documented a significant correlation between reported hog odor and known measures of CAFO emissions including hydrogen sulfide, the bioaerosol endotoxin and other particulate matter. Significant associations were reported between eye irritation and difficulty breathing with odor; respiratory symptoms in the last 12 hours with odor and hydrogen sulfide; wheezing and declines in a measure of lung function (FEV1) with fine particulate; and increased exposure to the bioaerosol endotoxin with sore throat, chest tightness and nausea.¹³

Impacts of CAFO exposures on the everyday lives of rural residents within 1 1/2 miles of a swine CAFO are well-documented.

Important epidemiologic studies of the impacts of CAFOs on children include a survey of 58,169 school children in North Carolina to assess the prevalence of wheezing in relation to CAFOs located within three miles of the school.^{14 15} The prevalence of wheezing within the last year was 5 percent higher in schools located within three miles of a CAFO, but 24 percent higher at schools where livestock odor was noticeable indoors twice per month. The study concluded: “Estimated

exposure to airborne pollution from confined swine feeding operations is associated with adolescents' wheezing symptoms.”

Iowa studies of childhood asthma include a Round 1 Keokuk County Rural Health Study of children living on swine farms, the vast majority of which were small deep pit CAFOs with pigs numbering in the hundreds.¹⁶ A high prevalence of asthma outcomes among rural children was reported, especially among children living on farms that raise swine (44.1 percent), and was particularly high among children living on a farm raising swine and adding antibiotics to feed (55.8 percent). Another Iowa study evaluated childhood asthma among children attending a school located within a half mile of a large CAFO housing some 3800 hogs. A significantly higher prevalence (19.7 percent) of doctor-diagnosed asthma was found among children attending school close to the CAFO; among children attending a school over 10 miles from a CAFO it was 7.3 percent.¹⁷ The odds of childhood asthma were increased over five-fold, while controlling for other risk factors.

A more recent study of childhood asthma from Round 2 of the Keokuk County Rural Health Study evaluated childhood asthma among children living within three miles of a swine CAFO.¹⁸ Doctor-diagnosed asthma prevalence was 11 percent for the Round 2 cohort of children, but a more reliable definition of childhood asthma was believed to be doctor-diagnosed asthma and/or medication for wheeze (22.7 percent). Relative exposure to these Keokuk County AFOS in low wind conditions resulted in significantly increased odds for both doctor-diagnosed asthma and asthma and/or medication for wheeze. When exposure was stratified by quartiles, a linear trend was observed with asthma and/or medication for wheeze. This study is important as it documents increased rural childhood asthma risk among rural children living within three miles of small swine confinement facilities.

A large survey of CAFOs in Germany studied adults 18-45 years old not engaged with livestock production but living within 500 meters to one or more swine CAFOs.¹⁹ This area of Lower Saxony in northwest Germany housed some 6.5 million hogs at the time of study. Exposure was measured by collecting data on odor annoyance and geo-coded data on the number of CAFOs within 500 meters of their home. The prevalence of asthma symptoms and nasal allergies increased with gradations of odor annoyance. The number of animal houses within 500 meters was found to be a predictor of wheeze and decreased lung function (FEV1).

Study: Number of CAFOs within 500 meters was found to be a predictor of wheeze and decreased lung function.

Taken together, these studies find documented evidence of nuisance and injury among rural dwellers living up to three miles from the nearest CAFO. Based on an Iowa DNR air monitoring study, air dispersion models have been developed that find that hydrogen sulfide, an indicator measure of CAFO pollution, extended further — up to six kilometers from the nearest CAFO.²⁰ Epidemiologic studies find that both perceived odor intensity and number of proximate CAFOs are risk factors in documented adverse health effects. However, these exposures are variable as they are affected by climatic conditions. So, a single small CAFO may be a perceived nuisance only under certain wind speeds and climatic conditions, but if neighbors are surrounded by CAFOs the adverse health effect risk, as well as the perceived nuisance, are significantly increased as exposure occurs no matter which way the wind blows.

Lost value of property

A recent article by Kilpatrick in the *Appraisal Journal* demonstrates the extensive devaluation in property caused by neighboring CAFOs as well as some large nuisance suit awards which seem to be the motivation behind the new Iowa legislation.²¹ That the decrease in value is significant is not in question. The article finds:

Overall, the empirical evidence indicates that residences near AOs are significantly affected, and data seems to suggest a valuation impact of up to 26% for nearby properties, depending on distance, wind direction, and other factors. Further, there has been some suggestion that properties immediately abutting an AO can be diminished as much as 88%. One study estimates the total negative impact to property values in the United States at \$26 billion. Mitigation makes a marginal impact. Not only are residences affected, but nearby small farms can be impacted by such factors as water degradation and insects.²²

The Kilpatrick article reports that property value decreases are confirmed by actions by county tax assessors. Reductions of the assessed value range from 20 to 40 percent of value in counties in farm states including Colorado, Missouri, Michigan, Illinois and Iowa. According to one study “only landfills have a worse effect on adjacent property values.”²³ One of the studies cited by Kilpatrick is from Iowa researchers who not only find a decrease in property value but also suggest that having the ability to bring suit might make the industry more accountable and that nuisance suits may prove to be a powerful incentive for CAFO owners to reduce emissions in Iowa and other states.²⁴

A last point made by the Kilpatrick article in the *Appraisal Journal* relates directly to the present attempt by the Iowa Legislature to change the rules of the game. A study he cites finds:

“... ten lawsuits over AO nuisance in which the plaintiff prevailed, with jury awards ranging up to \$50 million (Table 2). The size of these awards suggests that preventive measures, even if expensive, might be cost effective.

The size of the potential jury awards could lead to measure to mitigate the effects of CAFOs on neighbors or it might be cheaper still for producers to pass SF 447.

State Preemption of Local Regulation

Limitations on Iowans’ home-based responses to the impact of large economic forces on their communities are the common thread in a legislative agenda that has emerged at the State Capitol. The range of issues is diverse. During the 2017 legislative session, the General Assembly has acted or has legislation pending to preempt action taken by Iowa counties to set a minimum wage higher than the state and federal minimum wage and to forbid local government from eliminating the sale of plastic grocery bags.

Iowa has a history of preempting local government from regulating in some areas. While it is common for higher levels of government to try to keep laws consistent, the lower level government is often allowed to adopt more stringent regulations. This has not been true in several high-profile areas in Iowa this year; preemption of local government is expanding.

Proponents of preemption laws generally couch their support for maintaining consistency in laws across a state. For example, the National Rifle Association (NRA) joined a lawsuit to protect an Ohio law to prevent an “unreasonable and confusing patchwork of municipal gun laws” there.

“We have joined in this lawsuit as a defendant-intervenor to protect law-abiding gun owners in Ohio from harassment by an unreasonable and confusing patchwork of municipal gun laws,” said Chris W. Cox, NRA’s chief lobbyist. “NRA and our members support Ohio preemption so that the state legislature, rather than every town, village and burg, has the sole ability to control state police powers that are clearly of general concern.”

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Not generally mentioned by the NRA, or any other group seeking such consistency, is the reality that it is easier to pass one law at the state level than to go to 99 Iowa counties or a plethora of cities to pass the legislation that a group favors. Other areas of Iowa law where local governments are prevented from enacting more stringent limits than those of the state include pesticides, tobacco and genetically modified seeds.

The Centers for Disease Control and Prevention (CDC) recognizes that preemption by states can lead to weaker laws than if local governments were able to act. The CDC monitors state laws on preemption of local regulation of tobacco. As stated on the CDC website, “A *Healthy People 2010* objective (27-19) is to eliminate state laws that preempt stronger local tobacco control laws.”²⁶

IOWA and CAFOs

Iowa has greatly limited local government powers to regulate the location and emissions to air and water from concentrated animal feeding operations (CAFOs).

A series of Iowa Supreme Court cases have established that the Iowa Legislature can limit any local government action governing locations of CAFOs or placing limits on their discharges to water or air. The Iowa Supreme Court held that all agriculture, including an animal feeding operation, is exempt from any county zoning.²⁷ Humboldt County later attempted to put controls on CAFOs as a proper application of “home rule” authority but lost in the Iowa Supreme Court.²⁸ In the face of this state preemption, a Worth County ordinance sought to regulate CAFO operators based not on home rule, but on the county’s ability to protect public health. This ordinance was also struck down as void and unenforceable because it was contrary to state law. The court ruled:

“We conclude the Worth County ordinance is the type of ordinance expressly preempted by the state statute. Our legislature intended livestock production in Iowa to be governed by statewide regulation, not local regulation. It has left no room for county regulation.”^{29 30}

While the Iowa Supreme Court has supported laws that preclude local jurisdictions from regulating CAFOs, it established that the Legislature cannot prevent individuals from suing livestock producers under nuisance law even though that body tried to do it. The same legislative action that limited Iowa counties, (House File 519 in the 1995 session of the Iowa Legislature) attempted to also limit individual rights. In doing so the Legislature was doing what had been attempted by many states under so-called right-to-farm laws (Hamilton, 1998).³¹ The nuisance protection in HF 519 took the following form:

There is a “rebuttable presumption” that an animal feeding operation is not a public or private nuisance. This rebuttable presumption may be overcome by clear and convincing evidence of both of the following:

the animal feeding operation unreasonably and continuously interferes with another person’s comfortable use and enjoyment of life or property; and
the injury or damage has to be caused by the negligence of the operation.

All operations are included in the protection regardless of the established date of the operation or expansion. The losing party in a case is liable for all costs and expenses of the winning party, if the court determines that the claim is frivolous.³²

The Iowa Legislature went too far with this action. Since 2001, three Iowa district court judges have ruled against the attempt to protect CAFOs against nuisance suits (*Weinhold v. Wolff* (Iowa 1996); *Bormann v. Kossuth County Bd of Supervisors* (Iowa 1998); and *Gacke v. Pork Xtra LLC* (Iowa 2004)).^{33,34} Also, in October 2002 a case by neighbors against a CAFO owner was decided with a judgment for the plaintiff of \$1 million for actual damages and \$32 million for punitive damages. (*Blass, et al v. Iowa Select Farms, L.P.*) The case was settled out of court.

The new tactic

Legislation in 2017 that seeks to limit neighbor's right may well be challenged on grounds of constitutionality. As Kristine Tidgren, assistant director of the Center for Agricultural Law and Taxation at Iowa State University, explained in a recent blog:

The constitutionality of this legislation, if enacted, would no doubt be challenged as prior legislative attempts to limit nuisance actions against agricultural operations have been rejected by the Iowa Supreme Court. This legislation, however, is very different in that it does not seek to dismiss a nuisance lawsuit, but to limit the types of damages that can be recovered against "responsible" producers. The stated legislative purpose of this bill is to encourage the "expansion of responsible animal agricultural production in this state which provides employment opportunities in and economic growth for rural Iowa, contributes tax revenues to the state and to local communities, and protects our valuable natural resources."³⁵

Senate File 447 and House File 468 would limit damages that can be awarded to a person who wins a lawsuit against an animal feeding operation, under a claim that the CAFO is a public or private nuisance or an interference with another person's "comfortable use and enjoyment of the person's life or property." The bill would limit damages that can be awarded to a person impacted by a CAFO to (a) any actual reduction in property value caused by the facility, (b) past, present, and future adverse health impacts as determined by objectively documented medical evidence and proven to be caused by the facility, and (c) any award for damages due to annoyance and the loss of comfortable use and enjoyment of the property are limited to 1.5 times the sum of the two items above (property value and health).

Additionally, if the person suing wins the lawsuit, the facility is classified as a "permanent" nuisance rather than a temporary/intermittent nuisance. This means that a person gets one shot at damages — they cannot file additional lawsuits even if the facility causes additional impacts in the future. It also provides that if the person bringing the suit is not successful, then they are responsible for paying all legal costs of the owners of the facility. This same requirement is not applied to the facility owners if they lose the lawsuit.³⁶

Conclusion

Remedies available to rural Iowans to oppose, or take any legal action against a CAFO proposed or built in proximity to their property, have been systematically eliminated as the result of livestock industry political influence. Regulation of CAFOs is weak for CAFOs of any size, even to the extent that the Iowa DNR needed to resort to Google Earth imaging to estimate the total number of

CAFOs required for their 2016 EPA report.³⁷ Local control over siting of CAFOs has been largely eliminated.

Successful court appeals by the industry have blocked local health ordinances to prevent or control CAFOs requiring neighbors to move their arguments, in some cases successfully, to the court with a nuisance claim as described above. Iowa lawmakers now have a policy choice. Should they severely limit adversely affected neighbors' remaining protection against a politically powerful and well-funded industry whose impact on public health has already reached the tipping point? Or, should they let citizens keep long upheld rights and force the industry to clean up so as to minimize odor nuisance and impacts on the public's health?

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² Ibid

³ Pew Commission on Industrial Farm Animal Production, "Putting Meat on the Table: Industrial Farm Animal Production in America," http://www.livablefutureblog.com/pdf/Putting_Meat_on_Table_FULL.pdf

⁴ Chapter 657, Code of Iowa, Nuisances <https://www.legis.iowa.gov/docs/code/657.pdf>

⁵ Pew Commission on Industrial Farm Animal Production, "Putting Meat on the Table: Industrial Farm Animal Production in America," Technical Report: Occupational and Community Public Health Impacts of Industrial Farm Animal Production, <http://www.pcifapia.org/reports/>

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