

# CAFOs and U.S. Law

*N. William Hines\**

*ABSTRACT: In 1611 an English appellate court upheld a sizeable damage verdict against a hog farmer who erected a hog sty immediately adjacent to a neighbor's home. The court ruled that the concentration of hogs outside the neighbor's window created a stench that corrupted the quality of air in the neighbor's home. By deliberately so doing, the hog farmer was liable in nuisance damages for unreasonably interfering with the neighbor's right to breath clean and healthy air.*

*Hog farming has changed dramatically in the ensuing 400 years, particularly with respect to the prevalent modern practice of raising large numbers of hogs indoors in concentrated animal feeding operations—CAFOs. Nuisance law on the other hand remained quite stable over the centuries until the 1990s. At that point a few states, striving to compete more aggressively to attract CAFOs, began rewriting their traditional right-to-farm laws to provide protections to CAFOs against neighbors' nuisance actions, or to limit the damages successful nuisance plaintiffs could collect, or both.*

*This Article will take a close look at the federal, state, and local laws regulating CAFOs, and explore why a nuisance suit may be the only practical recourse for a neighbor to protect their property from pollution from the overpowering odor and possibly dangerous effluents and emissions emanating from a nearby CAFO. It will also explain that the underlying problem in the CAFO v. neighbor dynamic is the gross inadequacy of the conventional process used universally by CAFOs to manage the huge volumes of animal wastes they generate. Until this manure management problem is solved, CAFOs will continue to spawn conflicts with rural neighbors and create environmental issues for the community in which they are located.*

---

\* Professor of Law Emeritus and Dean Emeritus, The University of Iowa College of Law.

- I. INTRODUCTION..... 20
- II. PUTTING IN CONTEXT THE RISK OF HARM TO NEIGHBORS FROM A HOG CAFO..... 24
- III. THE CENTRAL PROBLEM: CAFOS UNIVERSALLY USE A PRIMITIVE ANIMAL WASTE DISPOSAL METHOD THAT CAN EASILY IMPOSE SERIOUS HARMS ON NEIGHBORS..... 26
- IV. FEDERAL REGULATION OF CAFOS..... 28
  - A. *THE CLEAN WATER ACT*..... 29
  - B. *THE CLEAN AIR ACT*..... 35
- V. STATE REGULATION OF CAFOS..... 37
  - A. *GENERAL ENVIRONMENTAL REGULATION*..... 37
  - B. *STATE REGULATION SPECIFICALLY GOVERNING CAFOS*..... 38
    - 1. Iowa’s CAFO Regulations..... 40
    - 2. North Carolina’s CAFO Regulations..... 41
    - 3. Other States’ CAFO Regulations..... 43
- VI. REGULATION OF CAFOS BY LOCAL GOVERNMENTS..... 44
- VII. COMMON LAW NUISANCE PROTECTION ..... 45
- VIII. AMENDMENT OF RIGHT-TO-FARM LAWS TO PROTECT CAFOS ..... 51
  - A. *IOWA’S AMENDMENTS TO ITS RIGHT-TO-FARM LAWS*..... 53
  - B. *NORTH CAROLINA AMENDMENTS TO ITS RIGHT-TO-FARM LAW*... 57
  - C. *THE FOURTH CIRCUIT RULING IN MCKIVER V. MURPHY-BROWN, LLC*..... 59
  - D. *OTHER STATES’ AMENDMENTS TO THEIR RIGHT-TO-FARM LAWS*..... 61
- IX. CONCLUSION ..... 62

I. INTRODUCTION

The term CAFO is an acronym for “concentrated animal feeding operation.”<sup>1</sup> CAFOs are a relatively recent development in American agriculture. They are the result of a nationwide shift to industrial agricultural practice in the latter years of the twentieth century. The industrialization trend started in the cattle industry when huge open-air cattle feedlots began

---

1. The term was first used in the federal Clean Water Act (“CWA”), enacted nearly fifty years ago. *See* An Act to amend the Federal Water Pollution Control Act, Pub. L. No. 92-500, § 502(14), 86 Stat. 816, 887 (1972) (codified as amended at 33 U.S.C. §§ 1151, 1251-1387).

popping up in the desert Southwest, feeding tens of thousands of cattle. Not long afterward, farmers growing hogs, chickens, and turkeys and producers of eggs started to industrialize their practices. The big difference was that these latter animals were not gathered in outdoor feedlots, but rather large concentrations of them were confined and fed indoors, where climate and weather changes were not a factor. The average Iowa hog CAFO feeds around 4,500 hogs at once.<sup>2</sup> Because most litigation over CAFOs involves hog CAFOs, this Article will focus primarily on those.

Here is how a typical hog CAFO operates. Specialized buildings are designed and built to accommodate large numbers of hogs in very close quarters. The indoor climate is controlled with centralized heating and cooling, plus various ventilation systems. The risk of calamitous disease in such close quarters is dealt with by extensive use of anti-biotics and other drugs. Not all hogs thrive in this controlled environment. A loss rate of five percent to ten percent, however, is generally deemed acceptable.<sup>3</sup>

By far the biggest problem faced by hog CAFOs is how to dispose of the huge volume of wet animal wastes these large numbers of confined hogs produce. To grasp the scale of the problem, consider this: Iowa has a population of roughly three million people, but annually produces 23 million hogs. These hogs generate wet animal wastes equivalent to the human sewage that would be produced by 168 million people.<sup>4</sup>

The threats CAFOs can pose to the health, property rights, and general well-being of neighboring landowners, whether the neighbors live on farmsteads or in rural residences, are well described and documented in numerous public health studies and journalism reports<sup>5</sup> as well as in recently litigated nuisance cases.<sup>6</sup> Liquefied animal wastes leaking from CAFO waste storage structures or escaping in runoff from ground-spreading practices can occasionally pollute nearby surface waters or contaminate local groundwater aquifers.<sup>7</sup> By far the most common problem adversely affecting neighbors, however, is severe corruption of the ambient air shared with a nearby CAFO.<sup>8</sup>

2. DECISION INNOVATION SOLUTIONS, 2020 IOWA PORK INDUSTRY REPORT 6 (2020), [https://www.iowapork.org/wp-content/uploads/2020/08/200615-2020\\_Iowa-Pork-Industry-Report\\_State\\_FINAL.pdf](https://www.iowapork.org/wp-content/uploads/2020/08/200615-2020_Iowa-Pork-Industry-Report_State_FINAL.pdf) [https://perma.cc/TT88-3U4T].

3. Jordan T. Gebhardt et al., *Postweaning Mortality in Commercial Swine Production. I: Review of Non-Infectious Contributing Factors*, 4 *TRANSNAT'L ANIMAL SCI.* 462, 463–64 (2020).

4. See James Merchant & David Osterberg, *Iowans Want Action to Limit Concentrated Animal Feeding Operations and Their Harmful Effects*, *DES MOINES REG.* (Feb. 18, 2020, 4:46 PM), <https://www.desmoinesregister.com/story/opinion/columnists/iowa-view/2020/02/18/cafos-animal-feeding-hogs-harms-iowa-have-worsened-moratorium/4794608002> [https://perma.cc/PY49-YSPG].

5. See CARRIE HRIBAR, *UNDERSTANDING CONCENTRATED ANIMAL FEEDING OPERATIONS AND THEIR IMPACT ON COMMUNITIES* 1–3 (2010), [https://www.cdc.gov/nceh/ehs/docs/understanding\\_cafos\\_nalboh.pdf](https://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf) [https://perma.cc/YFH2-BWV2]; Barry Yeoman, *The Stink and Injustice of Life Next to an Industrial Hog Farm*, *NATION* (Dec. 20, 2019), <https://www.thenation.com/article/archive/hog-farm-lawsuit-south> [https://perma.cc/38HM-CVKG].

6. See *Gacke v. Pork Xtra, L.L.C.*, 684 N.W.2d 168, 170–71 (Iowa 2004).

7. HRIBAR, *supra* note 5, at 3–5.

8. See Yeoman, *supra* note 5.

Air pollutants typically emitted by hog CAFOs include annoying airborne particulate matter, sulfur dioxide, ammonia, methane, anti-biotic residues and various pathogens. These unsavory emissions create a vile odor that can rise to the level of a sickening stench.<sup>9</sup> Neighbors forced to endure this odor have described it as a pungent combination of rotten eggs and concentrated battery acid.<sup>10</sup>

Besides purely legal concerns, CAFOs also raise several socio-economic issues that attract scholarly attention. One such issue is whether consolidation of corporate ownership within the meat processing industry, plus heavy vertical integration of the meat supply chain, is creating monopolies, or at least cartels, to the disadvantage of both farmers and consumers.<sup>11</sup> A second issue attracting growing interests is whether American society's most vulnerable citizens—poor people, recent immigrants and minorities—are bearing the external economic, health and environmental costs created by pollution from large confined animal feeding operations.<sup>12</sup> A third contested issue is whether young farmers constructing and operating additional CAFOs truly serves to create a realistic opportunity for the next generation of family farmers to get a start in farm business, as is frequently claimed.<sup>13</sup> These are all important issues worthy of serious study, but this Article will not examine them; it is focused exclusively on the legal issues raised by CAFOs' size, siting, operation, and waste disposal practices.

Over the years, government efforts to control the possible pollutants escaping from the nation's growing number of hog CAFOs produced many new statutes and reams of administrative regulations.<sup>14</sup> That being so, a curious reader may wonder: With so many layers of federal, state and local regulation of CAFOs to protect public health concerns and promote environmental quality, why is there such a heavy emphasis placed on private nuisance law in this Article?

The answer is that public regulation may be working to protect general public health and environmental quality in most states, but such general regulation does not assure that neighbors close to large hog CAFOs will not suffer severe nuisance harms. Particularly in states with the most hog CAFOs,

9. See Merchant & Osterberg, *supra* note 4.

10. See *Weinhold v. Wolff*, 555 N.W.2d 454, 459–60 (Iowa 1996).

11. See, e.g., Shi-Ling Hsu, *Scale Economies, Scale Externalities: Hog Farming and the Changing American Agricultural Industry*, 94 OR. L. REV. 23, 29–35, 55–56 (2015); Vanessa Zborek, "Yes, In Your Backyard!": *Model Legislative Efforts to Prevent Communities from Excluding CAFOs*, 5 WAKE FOREST J.L. & POL'Y 147, 149, 156 (2015).

12. See, e.g., Yeoman, *supra* note 5; Loka Ashwood, Danielle Diamond & Fiona Walker, *Property Rights and Rural Justice: A Study of U.S. Right-to-Farm Laws*, 67 J. RURAL STUD. 120, 120–21 (2019); Wendee Nicole, *CAFOs and Environmental Justice: The Case of North Carolina*, 121 ENV'T. HEALTH PERSPS. A182, A183–84 (2013); Michelle B. Nowlin, *Sustainable Production of Swine: Putting Lipstick on a Pig?*, 37 VT. L. REV. 1079, 1092–94 (2013).

13. See, e.g., Nowlin, *supra* note 12, at 1079–81, 1101; John D. Burns, Comment, *The Eight Million Little Pigs—A Cautionary Tale: Statutory and Regulatory Responses to Concentrated Hog Farming*, 31 WAKE FOREST L. REV. 851, 856–58 (1996).

14. See *infra* notes 54–56 and accompanying text.

and in other states aggressively competing to increase the numbers of hogs raised in their state, public regulation has proved ineffective in assuring neighbors' of CAFOs comfortable enjoyment of their property.<sup>15</sup> In those states, neighbors aggrieved by the pollution escaping from a nearby hog CAFO often find that a private nuisance lawsuit is their only viable legal recourse to protect their property rights and their family's well-being.<sup>16</sup> Historically, traditional nuisance law has offered reliable and effective relief from unreasonable invasions of neighbors' property rights.<sup>17</sup>

Today, however, nuisance law itself is under attack in a few states seeking to gain a competitive edge in attracting more CAFOs. In those states, updated right-to-farm laws are already on the books that are designed to exempt or otherwise insulate CAFOs from neighbors' nuisance lawsuits.<sup>18</sup> Further legislative efforts to weaken neighbors' rights to bring nuisance claims against CAFOs are clearly on the horizon.

The organization of this Article will proceed as follows. Part II seeks to put the risk to CAFO neighbors in context by recounting a recent exchange in the Iowa Senate focused on legislation intended to insulate CAFOs from certain nuisance damages. Part III will identify and explain the primary source of the CAFO problem confronting regulators and aggrieved neighbors—a universal, but environmentally unsatisfactory, method for disposing of huge amounts of potentially harmful wet animal wastes. Part IV will examine federal efforts under the Clean Water Act and the Clean Air Act to prevent or reduce harmful pollution produced by CAFOs. Part V will describe the marginal effects of general state environmental protection laws on reducing water and air pollution escaping from CAFOs. Part V will also investigate more closely the states' regulatory frameworks specifically directed at keeping CAFOs from harming the public and from becoming nuisances to their neighbors. This inquiry will focus on ten states with the most hog CAFOs and will examine the legislation and administrative regulations governing the approval, size, siting, design, operation, and manure disposal practices of CAFOs. Part VI will take a close look at attempts to control pollution from CAFOs by local units of government, and state laws adopted to prevent such regulation. Part VII will explore in detail the judicial enforcement of common law and statutory nuisance abatement measures against polluting CAFOs. Part VIII will examine both the impact on neighbors' nuisance suits of traditional right-to-farm laws in place in all 50 states and second-generation right-to-farm legislation specifically intended to insulate CAFOs from private nuisance actions by neighbors. Finally, Part IX will present a short summary and a conclusion that will attempt to underline the connections that bring together the material presented in this Article to tell a coherent story.

---

15. See *infra* Part V.

16. See *infra* Part VI.

17. See *infra* Part VI.

18. See Neil D. Hamilton, *Harvesting the Law: Personal Reflections on Thirty Years of Change in Agricultural Legislation*, 46 CREIGHTON L. REV. 563, 577–78 (2013).

## II. PUTTING IN CONTEXT THE RISK OF HARM TO NEIGHBORS FROM A HOG CAFO

This Part tells a cautionary tale about how special state legislation insulating CAFOs from nuisance suits by neighbors, intentionally or inadvertently, reduces neighbors' long-established property rights protected by traditional nuisance law.<sup>19</sup> A debate took place March 14, 2017 on the floor of the Iowa Senate<sup>20</sup> that illustrates what happens when practical legal objections are raised to granting CAFOs protections from nuisance claims that all other legal businesses are denied. The key exchange was between Senator Zumbach, the sponsor of legislation intended to limit the liability of CAFOs for nuisance harms to their neighbors, and Senator Hogg, an Iowa lawyer and legislator who was questioning the intended meaning of ambiguous language within the proposed legislation.<sup>21</sup>

Senator Hogg began his remarks with a personal story that poignantly captured the fears of every CAFO neighbor.<sup>22</sup> He said he and his wife were native Iowans, born and raised in typical Iowa communities.<sup>23</sup> He received his law degree from the University of Minnesota and initially practiced law in Minneapolis with a large law firm, but when he and his wife started a family, they wanted to raise their children in the type of natural beauty, safety, and serenity rural Iowa living offered.<sup>24</sup> Therefore, he relocated his law practice to Cedar Rapids and his family moved to a small rural acreage they purchased just outside of town.<sup>25</sup> Senator Hogg described his current rural Iowa family home as his vision of paradise on earth.<sup>26</sup> But he said he was worried that his wonderful family life in the Iowa countryside could be seriously disrupted and perhaps ruined if a large hog, poultry, or egg production CAFO started operating nearby.<sup>27</sup> He feared such a CAFO would regularly corrupt the air surrounding his home with harmful particulate matter, noxious chemicals and unbearable odors to the point that he would have to either successfully sue the CAFO to shut it down or move.<sup>28</sup>

Senator Hogg then posed this question to Senator Zumbach: Was the vague language in the proposed legislation capping the recovery of compensatory damages intended to make money damages the only legal

---

19. This tale is told in more detail in a previous essay. See N. William Hines, *Here We Go Again: A Third Legislative Attempt to Protect Polluting Iowa CAFOs from Neighbors' Nuisance Actions*, 103 IOWA L. REV. ONLINE 41, 54-62 (2018).

20. See Iowa Legislature, *Senate Video (2017-03-14)*, IOWALEGIS. (Mar. 14, 2017) [hereinafter *Iowa Senate Video*], <https://www.legis.iowa.gov/dashboard?view=video&chamber=S&clip=s20170314163649480&dt=2017-03-14> [<https://perma.cc/2XFB-HJUC>].

21. *Id.* at 6:48-6:51 PM.

22. *Id.* at 6:02 PM.

23. *Id.*

24. *Id.*

25. *Id.*

26. *Id.* at 6:00 PM.

27. *Id.* at 6:04 PM.

28. *Id.*

remedy a winning Iowa nuisance plaintiff could ever recover against a polluting CAFO?<sup>29</sup> Under the bill such money damages were limited to evidence-based personal medical expenses, to documented permanent loss in the property value of the land adversely affected by the continuing nuisance, and special compensatory damages (which were capped).<sup>30</sup> Senator Hogg asked more precisely: If the proposed legislation became law, would it still be possible for an aggrieved neighboring landowner to go to an Iowa court and secure an injunction stopping the operation of a severely harmful CAFO nuisance or to recover punitive damages for egregious intentional harm caused by a CAFO?<sup>31</sup> Senator Zumbach responded that the proposed legislation under debate was not intended to change the existing Iowa law on nuisance remedies other than to limit the amount of compensatory damages recoverable by neighbors who successfully sued offending CAFOs.<sup>32</sup> Senator Johnson, another lawyer/legislator critical of the proposed legislation, then introduced an amendment clarifying that the new law would not affect existing nuisance remedies other than money damages.<sup>33</sup> The Senate majority quickly voted down this proposed amendment along party lines.<sup>34</sup> The legislation restricting money damages recoverable against a CAFO passed both houses of the Iowa General Assembly and was signed into law by the Iowa Governor Branstad on March 29, 2017.<sup>35</sup>

No CAFO has yet moved into Senator Hogg's rural neighborhood to threaten his family's health, comfort, and tranquil life, but the possibility of such an unwanted development next door continues to produce understandable anxiety. This is because direct federal regulation of CAFOs is very limited and does not affect most Iowa CAFOs.<sup>36</sup> The U.S. Environmental Protection Agency ("EPA") estimated that in 2003 over 238,000 CAFOs were operating in the United States,<sup>37</sup> but less than 7,000 had received National Pollution Discharge Elimination System ("NPDES") permits by 2018.<sup>38</sup> State regulation of CAFOs in Iowa has been rendered largely ineffective as a result of the General Assembly and the Department of Natural Resources collaborating to advance the state's official policy of doing all it can to attract more hog CAFOs.<sup>39</sup> County zoning and other forms of local regulation of

29. *Id.* at 6:47 PM.

30. See IOWA CODE § 657.11A (2021).

31. See *Iowa Senate Video*, *supra* note 20, at 6:48 PM.

32. *Id.*

33. *Id.*

34. *Id.*

35. See Hines, *supra* note 19, at 42; IOWA CODE § 657.11A (2021).

36. See *infra* Part IV.

37. See *Waterkeeper All., Inc. v. EPA*, 399 F.3d 486, 492 (2d Cir. 2005).

38. EPA, NPDES CAFO PERMITTING STATUS REPORT (2018), [https://www.epa.gov/sites/default/files/2019-09/documents/cafo\\_tracksum\\_endyear\\_2018.pdf](https://www.epa.gov/sites/default/files/2019-09/documents/cafo_tracksum_endyear_2018.pdf) [<https://perma.cc/J5F3-LYXG>].

39. See *infra* Part V.

CAFOs are expressly prohibited by statute in Iowa,<sup>40</sup> and controversial measures designed to protect Iowa CAFOs from conventional nuisance liability continue to gain favor in the state legislature.<sup>41</sup>

The specific question raised by Senator Hogg during the Iowa Senate debate about whether the latest legislation protecting CAFOs against nuisance liability eliminated all remedies except the restricted money damages is still unanswered. It will likely remain undetermined until an Iowa court interprets the new law's ambiguous language. Senator's Zumbach's view that the new law is limited to capping money damages is the most sensible interpretation of the ambiguous language. Still there is a distinct possibility that the disputed language could be interpreted by a well-meaning court to rule out any relief against a CAFO found to be a legal nuisance, except for money damages.<sup>42</sup> After all, the Iowa legislature has made clear that it favors a public policy of facilitating the expansion of hog CAFOs to bolster the state's rural economy. Losing the customary nuisance remedies of injunctive relief and punitive damages would be a huge disadvantage to Senator Hogg's family and to countless other rural Iowans wanting to protect their homes and farmsteads from a CAFO's pollution.

### III. THE CENTRAL PROBLEM: CAFOs UNIVERSALLY USE A PRIMITIVE ANIMAL WASTE DISPOSAL METHOD THAT CAN EASILY IMPOSE SERIOUS HARMS ON NEIGHBORS

In the absence of effective federal, state or local regulation, what commonly troubles neighbors most about living next to a CAFO are the extremely unpleasant spillover effects from the prevailing method CAFO operators use for disposing of the extraordinarily large volume of wet animal wastes CAFOs regularly generate.<sup>43</sup> Today the standard method for managing and disposing of the huge amounts of animal wastes produced by the nation's CAFOs relies on a similar practice used to dispose of household sewage in cities during the Roman Empire two thousand years ago. In Roman times, household wastes were simply emptied into an open public sewer from which they were ultimately either dumped into a pit or discharged into the nearest waterway.<sup>44</sup> Until the middle of the nineteenth century, this type of primitive

---

40. See IOWA CODE §§ 335.2, 331.304A(2) (2021).

41. See *infra* Section VIII.A.

42. At least one Iowa lawyer knowledgeable about this issue expressed the opinion that the new law does indeed eliminate both injunctive relief and punitive damages as nuisance remedies against Iowa CAFOs. See Jennifer De Kock, *New CAFO Law Goes into Effect July 2017*, IOWA LAW., July 2017, at 17, 18.

43. See, e.g., *Weinhold v. Wolff*, 555 N.W.2d 454, 459–60 (Iowa 1996) (including vivid statements of complaints by plaintiff and other neighbors about the discomfort of living in close proximity to a lagoon full of decomposing wastes from a hog CAFO); see also John Flesher, *Factory Farms Provide Abundant Food, but Environment Suffers*, DES MOINES REG. (Feb. 7, 2020, 10:10 AM), <https://www.desmoinesregister.com/story/money/agriculture/2020/02/07/iowa-ag-factory-farming-food-environment-impacts-cafo/4682094002> [<https://perma.cc/gL8P-97NY>].

44. J. DONALD HUGHES, ENVIRONMENTAL PROBLEMS OF THE GREEKS AND ROMANS: ECOLOGY IN THE ANCIENT MEDITERRANEAN 177 (2014).

waste disposal method was widely used in the United States to dispose of fluid household wastes in rural America.<sup>45</sup> Before modern public health regulations required all rural residents with running water to install a government-certified septic system, rural residents simply ran an external pipe carrying their household wastewater downhill to a low place called a “cesspool,”<sup>46</sup> where it collected and gradually decomposed. I was raised on a Kansas farmstead during this era and our household used this simple, but dirty, wastewater disposal system. We kids were frequently warned to stay away from the cesspool because it was beyond nasty.

This method for dealing with rural human wastes has not been legal anywhere in the United States for over fifty years.<sup>47</sup> CAFO operators, however, are still routinely allowed to employ an analogue to this crude practice to dispose of the large amounts of animal wastes they produce, adding only a final step of periodically emptying their modern cesspools by spreading or spraying the partly-decomposed manure slurry on local farm fields as fertilizer.<sup>48</sup> As noted earlier, the big difference between the centuries-old method for dealing with household wastes in rural America and the current practice for disposing of the massive amount of animal wastes produced by hog CAFOs today is mostly a matter of scale.<sup>49</sup> An average-sized hog can produce up to eight times more urine and feces than does the average-sized human being.<sup>50</sup> The typical CAFO feeds thousands of hogs, dwarfing the waste load produced by a single human household.<sup>51</sup>

Here is how animal wastes are disposed of today by virtually every U.S. hog CAFO. First, the animals’ urine and feces are hosed off and drain through a slotted floor in the confinement building. This smelly slurry of animal wastes

45. John Tibbetts, *Combined Sewer Systems: Down, Dirty, and Out of Date*, 113 ENV’T HEALTH PERSP. A 465, A 465 (2005).

46. *Id.*; see also WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY UNABRIDGED (2002) (defining a “cesspool” as “an underground catch basin that is used where there is no sewer and into which household sewage or other liquid waste is drained to permit leaching of the liquid into the soil”). Early lagoons were also capable of collapsing and spilling their nasty contents into nearby waters and leaking their contents into adjacent soils and underground aquifers. State regulations today typically require reinforced lagoons made leakproof with some form of impermeable lining.

47. See Hines, *supra* note 19, at 44–45.

48. See N. William Hines, *Farmers, Feedlots and Federalism: The Impact of the 1972 Federal Water Pollution and Control Act Amendments on Agriculture*, 19 S.D. L. REV. 540, 549–51 (1974).

49. See HRIBAR, *supra* note 5, at 2–3.

50. Nicole, *supra* note 12, at A186. Iowa’s human population is around 3 million, but its hog population is over 25 million. See Tyler Jett & Brianne Pfannenstiel, *Iowa Grows to 3.2 Million People in 2020 Census, Retains 4 Congressional Seats*, DES MOINES REG. (Apr. 27, 2021, 3:12 PM), <https://www.desmoinesregister.com/story/news/politics/2021/04/26/iowa-us-2020-census-poulation-grows-3-2-million-retains-4-seats-congress/7381492002> [https://perma.cc/5XV8-5XCR]; Neil Hamilton, Matt Liebman, Silvia Secchi & Chris Jones, *Iowa’s Water Quality Strategy is Not Working. Here’s What Should Be Done Instead.*, DES MOINES REG. (Feb. 7, 2020, 10:33 AM), <https://www.desmoinesregister.com/story/opinion/columnists/iowa-view/2020/02/07/iowa-water-quality-new-strategy-needed/4546560002> [https://perma.cc/ZNN5-98TD].

51. See Cordon M. Smart, *The “Right to Commit Nuisance” in North Carolina: A Historical Analysis of the Right-to-Farm Act*, 94 N.C. L. REV. 2097, 2104–06 (2016).

and wash water is collected in an on-site holding tank below floor level. When this tank becomes full, its contents are flushed out and piped an outdoor waste storage basin or impoundment some distance downhill (euphemistically called in the trade a “lagoon”), where it slowly decomposes. Because the lagoon is typically open to the air, however, the decomposition process is much slower than what takes place anaerobically in a typical septic tank. Also, unlike a septic tank, there is no provision made for liquids created by decomposition to drain away. To the contrary, any liquid wastes leaking from the lagoon or otherwise escaping into the local environment could pose an environmental disaster for the CAFO. Finally, before the lagoon overflows, the CAFO operator periodically pumps out the liquified manure and spreads it or sprays it on nearby farm fields as a natural fertilizer.

Currently, across the United States, this primitive waste disposal practice is the almost universal method for disposing of animal wastes produced by hog CAFOs.<sup>52</sup> It is obviously favored by CAFOs because it is the easiest and most cost-effective method for handling the disposal of such a high volume of animal wastes. It is the readily predictable impact of this conventional practice for disposing of animal wastes that make even well-managed CAFOs so objectional to nearby neighbors. A CAFO’s close neighbors do not want to suffer the possible groundwater pollution or endure the regular saturation of the neighborhood air with a vile combination of particulate matter, noxious airborne chemicals, and a pungent odor. Thus, unless a CAFO’s neighbors afflicted by these negative externalities have access to some form of legal protection for their property rights, the uncontrollable side effects of this standard practice for the disposal of animal wastes can make their lives utterly miserable, particularly under unfavorable wind or other weather conditions.<sup>53</sup>

#### IV. FEDERAL REGULATION OF CAFOs

If one were to review the lengthy sections of the federal Clean Water Act (“CWA”) <sup>54</sup> and Clean Air Act (“CAA”),<sup>55</sup> and the voluminous regulations issued under them,<sup>56</sup> it would look like there is a massive amount of federal regulatory activity directly affecting CAFOs that are large enough to produce significant environmental harm. The reality on the ground, however, is quite different. Although the CWA expressly includes CAFOs in the EPA’s responsibility to control potential “point sources” of water pollution,<sup>57</sup> for the

---

52. Patricia M. Glibert, *From Hogs to HABs: Impacts of Industrial Farming in the US on Nitrogen and Phosphorus and Greenhouse Gas Pollution*, 150 BIOGEOCHEMISTRY 139, 143–44 (2020).

53. See Hines, *supra* note 19, at 45, 48.

54. See An Act to amend the Federal Water Pollution Control Act, Pub. L. No. 92-500, 86 Stat. 816 (1972) (codified as amended at 33 U.S.C. §§ 1151, 1251–1387) [hereinafter Clean Water Act (“CWA”)].

55. See Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685 (codified as amended at 42 U.S.C. §§ 7401–7671q) [hereinafter Clean Air Act (“CAA”)].

56. Federal Regulations under the Clean Water Act and the Clean Air Act are found in the Code of Federal Regulations (CFR). See 40 C.F.R. §§ 50–149 (2021).

57. See 33 U.S.C. § 1362(14) (2018).

most part the EPA has delegated the direct regulation of CAFOs to state water quality control programs.<sup>58</sup>

The CAA entails a similar delegation of program authority to state regulators to use the mandated State Implementation Plans to implement the national standards set forth in the Act.<sup>59</sup> The definition of potential “stationary sources” of air pollution in the CAA does not specifically include CAFOs,<sup>60</sup> as the definition of “Point Sources” does in the CWA.<sup>61</sup> Thus, general federal regulation of air quality simply does not affect most of the nation’s hundreds of thousands of known CAFOs. Furthermore, environmental experts claim that only a small fraction of the CAFOs in the United States are operating under any type of federal or state permit. Perhaps more disturbing, the identity and the precise location of most of the unregulated CAFOs are not even known to EPA or to state regulators.<sup>62</sup>

#### A. THE CLEAN WATER ACT

The Clean Water Act was adopted with much fanfare in 1972 partly because it originally called for eventual attainment of a national policy of “No Discharge” of pollutants to U.S. waters by 1985.<sup>63</sup> The Act also set forth an intermediate goal of making all U.S. waters “fishable and swimmable” by July 1, 1983.<sup>64</sup> The CWA has been amended several times over the years, and the extensive regulations promulgated under the Act have been frequently revised, often as a result of legal challenges from industry groups or environmental advocates.<sup>65</sup> Successful suits by environmental advocates have served to tighten regulatory control over polluters,<sup>66</sup> but most of the changes in the CWA and its regulations resulted from victories in suits by industry groups.<sup>67</sup> These changes tended to reduce or delay federal requirements, weaken enforcement powers and extend the law’s many attainment deadlines.<sup>68</sup> Needless to say, after almost 50 years on the books, the CWA’s

---

58. See Hines, *supra* note 19, at 46.

59. See 42 U.S.C. § 7411(d)(1) (2018).

60. See *id.* § 7602(z).

61. See 33 U.S.C. § 1362(14) (2018).

62. See Donnelle Eller, *Iowa Uses Satellites to Uncover 5,000 Previously Undetected Animal Confinements*, DES MOINES REG. (Sept. 19, 2017, 9:05 AM), <https://www.desmoinesregister.com/story/money/agriculture/2017/09/15/iowa-discovers-thousands-more-hog-cattle-operations-state-says-most-likely-too-small-require-oversig/665956001> [<https://perma.cc/ECD2-5K2K>].

63. See 33 U.S.C. § 1251(a)(1).

64. See 33 U.S.C. § 1251(a)(2).

65. See Robert W. Adler, *The Decline and (Possible) Renewal of Aspiration in the Clean Water Act*, 88 WASH. L. REV. 759, 780–81 (2013).

66. See *id.* at 780–81, 793.

67. See *id.* at 775–79, 797.

68. See *id.* at 772, 783–87.

ambitious goals have never come close to being attained, although the quality of the nation's waterways is noticeably improved.<sup>69</sup>

Structurally, the CWA divides all water pollution sources into two categories, "Point Sources" and "Non-Point Sources." Point sources are defined as discrete locations from which discharges of potential water pollutants originate.<sup>70</sup> The CWA calls for close regulation of all point sources, initially to control them and ultimately to eliminate them.<sup>71</sup> New point sources are subject to the strictest regulation.<sup>72</sup> They are required to install the "best available" water pollution control technology before the regulations allow them to commence operation.<sup>73</sup> Most existing point sources were industrial or municipal and were subject to increased federal regulation over the years as pollution control technology improved.<sup>74</sup> Not so for CAFOs. This is because the CWA only requires federal regulation of large-scale CAFOs, and the great majority of the nation's CAFOs fall below this regulatory floor.

Non-point sources are primarily rural in nature and involve various types of open-land runoff carrying pollutants to nearby waterways.<sup>75</sup> In the CWA, adoption of practical strategies to control non-point sources were basically left for future development. Unfortunately, after almost a half century, systematic controls over non-point sources have yet to emerge. Runoff from agricultural land has long been by far the largest contributor to the nation's water pollution burden from non-point sources.<sup>76</sup>

The CWA expressly designates CAFOs as "point sources"<sup>77</sup> of potential water pollution, and above a specified size all CAFOs discharging animal wastes are required to secure a permit from the NPDES.<sup>78</sup> The regulations under the Act define whether a CAFO is large, medium, or small on the basis of the number of animal units they feed at maximum capacity for at least 45 days per year.<sup>79</sup> For example: A CAFO feeding hogs weighing 55 pounds or more is considered a large CAFO under the regulations if it feeds over 2,500 hogs; a hog CAFO is medium-sized if it feeds 750–2,499 hogs of the requisite size; and a hog CAFO is small if it feeds 749 such hogs or less.<sup>80</sup> Only large CAFOs are required to secure NPDES permits.<sup>81</sup> Medium-sized CAFOs may or

---

69. See generally N. William Hines, *History of the 1972 Clean Water Act: The Story Behind How the 1972 Act Became the Capstone on a Decade of Extraordinary Environmental Reform*, 4 GEO. WASH. J. ENERGY & ENV'T. L. 80, 105–06 (2013).

70. See 33 U.S.C. § 1362(14) (2018).

71. See *id.* § 1251(a).

72. See *id.* § 1316(a)(1).

73. *Id.*

74. See 33 U.S.C. § 1314(b)(4).

75. Jonathan Cannon, *A Bargain for Clean Water*, 17 N.Y.U. ENV'T. L.J. 608, 610 (2008).

76. See *id.* at 610–11.

77. 33 U.S.C. § 1362(14) (2018).

78. See 40 C.F.R. § 122.23(d)(1) (2020).

79. *Id.* § 122.23(b).

80. *Id.*

81. *Id.* § 122.23(d), (e).

may not require NPDES permits, depending on several factors relating to their location, operation, and waste disposal systems.<sup>82</sup> Small CAFOs are not expressly mentioned in the regulations, therefore generally they are not required to operate under NPDES permits unless they discharge animal wastes directly into waters of the United States or have other problematic characteristics that threaten the achievement or maintenance of local water quality standards.<sup>83</sup>

EPA promulgated and published major regulations dealing with CAFOs in 1974, in 2003, and again in 2008.<sup>84</sup> All of these regulations were challenged in court, either by environmental organizations or by CAFO industry groups.<sup>85</sup> In all three instances of litigation the resulting judicial decisions caused the EPA to withdraw or rewrite some of the proposed regulations.<sup>86</sup> The most notable EPA legal setback suffered through adverse court decisions in these cases included overturning new rules that required all CAFOs, or at least all CAFOs with the “potential” or “proposing” to pollute, to operate under a NPDES permit.<sup>87</sup> Three other litigation losses included: 1) rejection of new rules that required manure storage lagoons to withstand a 100-year, 24-hour rain event; 2) treated runoff from land on which liquefied manure was applied as a “point source” of pollution instead of exempt “agricultural stormwater runoff;” and 3) added “water quality-based effluent limits” (“WQBELs”) to CAFO permits in all cases where ordinary effluent limits were insufficient to protect local water quality standards.<sup>88</sup>

Thus, what appears on the surface as systematic, intense, and direct federal enforcement of the CWA against CAFOs is simply a mirage. Over the years, the EPA has engaged in a massive delegation to state water pollution control agencies of the primary regulatory authority for issuing and enforcing NPDES permits to CAFOs within their state.<sup>89</sup> It has also off-loaded to the states’ primary responsibility for regulating CAFOs not required to hold NPDES permits. Currently, 47 of the 50 states have received this delegated

---

82. *Id.* § 122.23(e), (h).

83. *Id.*

84. *See* Effluent Guidelines and Standards, 39 Fed. Reg. 5704 (Feb. 14, 1974) (to be codified at 40 C.F.R. pt. 412); National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs), 68 Fed. Reg. 7176 (Feb. 12, 2003) (to be codified at 40 C.F.R. pts. 9, 122, 123, 412); Revised National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision, 73 Fed. Reg. 70418 (Nov. 20, 2008) (to be codified at 40 C.F.R. pts. 9, 122, 412).

85. *See* Nat. Res. Def. Council, Inc. v. Reilly, 781 F. Supp. 806, 807–08, 811 (D.D.C. 1992); Waterkeeper All., Inc. v. EPA, 399 F.3d 486, 490–98 (2d Cir. 2005); Nat’l Pork Producers Council v. EPA, 635 F.3d 738, 741–43, 749 (5th Cir. 2011).

86. *See generally supra* note 85 for the three examples.

87. *Waterkeeper All., Inc.*, 399 F.3d at 502–03.

88. *Id.* at 506, 520–23.

89. *NPDES State Program Authority*, EPA, <https://www.epa.gov/npdes/npdes-state-program-authority> [<https://perma.cc/TPG2-H42P>].

regulatory authority.<sup>90</sup> Only in Massachusetts, New Mexico, and New Hampshire are NPDES permits issued by the EPA itself through its regional offices.<sup>91</sup>

In issuing NPDES permits, both federal and state regulators must apply EPA-promulgated CAFO effluent guidelines, best waste disposal practices, nutrient management requirements, and any permitted discharge of pollutants must meet relevant local water quality standards.<sup>92</sup> Unlike the radical “No Discharge” policy of the original CWA, however, the regulations implementing effluent guidelines for CAFOs expressly consider economic practicality equally with environmental security, with the prevalent standard being “Best Conventional . . . Technology.”<sup>93</sup> Best conventional technology for CAFOs as defined by EPA and state regulators is the lagoon storage/land spreading practice described earlier.<sup>94</sup> Similarly, the Best Available Technology (“BAT”) for new CAFOs is limited to “best available technology economically achievable,” which also translates into the conventional waste disposal practice,<sup>95</sup> because no higher degree of animal waste treatment has ever proved economically practical or sustainable. This is a far cry from the secondary treatment routinely required of all municipal waste treatment plants, or the tertiary treatment required of many others. In short, EPA’s effluent guidelines for CAFOs bear little resemblance to the carefully calculated, science-based effluent standards the EPA established under the CWA and aggressively applies to industries, municipalities, and other known major point sources.

One important additional federal requirement for CAFOs is that all NPDES permits must assure that an exposed animal wastes storage lagoon can withstand a 24-hour, 25-year rain event without overflowing.<sup>96</sup> Another important regulatory requirement added more recently is that state-issued NPDES permits must include detailed Nutrient Management Plans (“NMP”) for storage and land disposal of animal wastes generated by regulated CAFOs.<sup>97</sup> The required NMPs must reflect national best practices for storing animal feces, urine, and process water, and for spreading or spraying liquified animal wastes on cropland or other open land.<sup>98</sup> The NMPs theoretically

---

90. *Id.*

91. *Id.*

92. *See generally* EPA, NPDES PERMIT WRITERS’ MANUAL FOR CONCENTRATED ANIMAL FEEDING OPERATIONS (2012), [https://www.epa.gov/sites/default/files/2015-10/documents/cafo\\_permitmanual\\_entire.pdf](https://www.epa.gov/sites/default/files/2015-10/documents/cafo_permitmanual_entire.pdf) [<https://perma.cc/KR9U-MSYT>] (providing a comprehensive manual explaining all CAFO permitting requirements).

93. *Id.* at 13, 66, 83.

94. *Id.* at 26, 126.

95. *Id.* at 13.

96. In its 2003 rulemaking, the EPA attempted to increase this requirement to a “100-year, 24-hour rainfall event,” but this change was invalidated in a court decision. *See* EPA, CONCENTRATED ANIMAL FEEDING OPERATIONS FINAL RULEMAKING—Q & A 1 (2008), [https://www3.epa.gov/npdes/pubs/cafo\\_final\\_rule2008\\_qa.pdf](https://www3.epa.gov/npdes/pubs/cafo_final_rule2008_qa.pdf) [<https://perma.cc/6RTH-PWK8>].

97. *Id.*

98. *Id.*

control the maximum amounts of animal wastes that can be spread or sprayed on cropland over set periods of time, consistent with the agronomic nutrient absorption rate of the soils on which the wastes are spread.<sup>99</sup> Because there are multiple variables that affect the environmental safety of spreading animal wastes as fertilizer, the NMP's lack scientific precision. Adding to this uncertainty, CAFO operators are encouraged to experiment by trial and error to determine their land's actual agronomic absorption capacity.<sup>100</sup> Thus, the NMPs are very different from the rigorous regulatory requirements EPA imposes on land spreading of potential water pollutants everywhere but in the agricultural sector.

Another wrinkle in the interpretation of the NMP regulations concerns storm water runoff from lands on which CAFO wastes have been spread or sprayed as fertilizer. Such runoff can seriously pollute nearby watercourses.<sup>101</sup> Regulations under the CWA, however, specifically exempt "agricultural stormwater discharge" from direct regulation as point sources.<sup>102</sup> Under the current regulations, if a CAFO is in full compliance with its approved NMP, stormwater runoff from land fertilized with animal wastes is not regarded as the discharge of a pollutant but is treated instead as an exempt "agricultural stormwater discharge."<sup>103</sup> The U.S. Court of Appeals for the Second Circuit upheld this regulatory distinction in *Waterkeepers Alliance, Inc. v. EPA*.<sup>104</sup>

CAFO permits issued by states to whom EPA has delegated NPDES permitting authority must conform to national standards for CAFO effluents and for acceptable nutrient management plans promulgated by the EPA.<sup>105</sup> The state-issued NPDES permits must also protect federal water quality standards established for state waterways.<sup>106</sup> State authorities, however, are granted a good deal of discretion in managing their NPDES permitting responsibilities.<sup>107</sup> This includes the ability to add state-based requirements to the permits, including more exacting siting restrictions, higher construction standards for facilities, stricter operating rules, and more detailed nutrient management plan requirements.<sup>108</sup> All additional state regulation, however, must be at least as strict as the applicable federal requirements.<sup>109</sup> As a result,

---

99. *Id.* at 4.

100. *Id.*

101. *See* *Waterkeeper All., Inc. v. EPA*, 399 F.3d 486, 494 (2d Cir. 2005).

102. *Id.* at 496.

103. *Id.* at 507.

104. *See id.* at 522–24.

105. *See* 33 U.S.C. §§ 1319(a)(2), 1319(c) (2018).

106. *Id.*

107. Madhavi Kulkarni, Note, *Out of Sight, But Not Out of Mind: Reevaluating the Role of Federalism in Adequately Regulating Concentrated Animal Feeding Operations*, 44 WM. & MARY ENV'T. L. & POL'Y REV. 285, 288–89, 291–93 (2019).

108. *Id.*

109. EPA, PRODUCERS' COMPLIANCE GUIDE FOR CAFOS: REVISED CLEAN WATER ACT REGULATIONS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS (CAFOS) 5 (2003), <https://www.epa.gov/sites/default/files/2015-06/documents/compliance-cafos.pdf> [<https://perma.cc/UTU5-DV3H>].

most states combine federal requirements with supplemental state requirements and issue a standard unified permit for operating a CAFO to all confined feeding operations within the same size category.<sup>110</sup>

As to CAFOs below the 1000-animal-units minimum, state regulators are authorized to establish effluent limitations based on their “Best Professional Judgment.”<sup>111</sup> In exercising this discretion, state regulators are instructed to consider “the cost of achieving effluent reduction, the age of the equipment and the facility, the [waste disposal] process employed, the engineering aspects of the control techniques, the process changes, and non-water quality environmental impacts.”<sup>112</sup>

It appears states vary a great deal in how assiduously they regulate medium and small CAFOs to prevent water pollution, but one thing they seem to have in common is that in exercising their “Best Professional Judgment” they regularly approve the conventional waste disposal practices of hog CAFOs as a perfectly acceptable method for disposing of huge amounts of animal waste. They also accept this waste disposal practice as BCT, “best control technology for conventional pollutants.”<sup>113</sup> Federal regulatory approval is granted for the lagoon/land spreading practice unless the CAFO’s waste discharges can be demonstrated to reach nearby waters directly, or through an artificial discharge point or an interconnection between underground and surface waterways, or the CAFO is sited in a particularly sensitive location.<sup>114</sup> If any of these conditions are present, a case-by-case analysis is required to assess the environmental risk proposed by the CAFO’s proposed waste management practices.<sup>115</sup>

One area where the states have the primary regulatory role under the CWA is in controlling pollution of groundwater, except in cases where a discharge from a CAFO can reach U.S. waters via a direct hydrological connection to groundwater.<sup>116</sup> In such a case, a NPDES permit is required.<sup>117</sup> Otherwise, if a proposed CAFO is located in a region where groundwater aquifers are particularly vulnerable to becoming polluted from seepage from CAFO storage lagoons or by surface runoff from lands spread with liquefied manure, the permit issued to the CAFO by a state must provide additional restrictions designed to prevent groundwater pollution.<sup>118</sup> A fragile limestone substrata underlies the land surface in portions of several states with large

---

110. *Id.*

111. EPA, GUIDE MANUAL ON NPDES REGULATIONS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS 12–14 (1995), <https://www3.epa.gov/npdcs/pubs/owm0266.pdf> [<https://perma.cc/A4FE-FN7P>].

112. *Id.* at 14.

113. 40 C.F.R. § 432.47 (2020).

114. EPA, *supra* note 111, at 9–10.

115. *Id.* at 10.

116. *See id.* at 3; EPA, *supra* note 96, at 5.

117. *Id.* at 5–6.

118. *See* JAMES MERCHANT & DAVID OSTERBERG, THE EXPLOSION OF CAFOs IN IOWA AND ITS IMPACT ON WATER QUALITY AND PUBLIC HEALTH i–ii (2018), <https://www.iowapolicyproject.org/2018docs/180125-CAFO.pdf> [<https://perma.cc/Y6YW-UGZ5>].

CAFO populations. This type of subsurface formation, called karst substrata by geologists, is highly susceptible to fracturing and allowing seepage from lagoons and surface runoff to flow into groundwater aquifers, polluting them for long periods of time.<sup>119</sup> State officials generally will not issue CAFO permits for this type of land surface, but when a rare permit is issued, state regulators routinely subject the permitted CAFO to the strictest waste management requirements and to regular monitoring to prevent groundwater pollution.<sup>120</sup>

### B. THE CLEAN AIR ACT

Like the CWA, the CAA divides its regulatory authority into two categories—“stationary sources” and “indirect sources,” commonly referred to as “mobile sources.”<sup>121</sup> Unlike the CWA, which specifies CAFOs as potential “point sources” of water pollution,<sup>122</sup> the CAA has never classified CAFOs as stationary sources of air pollution. CAFOs clearly are not mobile sources of air pollution, so they are not subject to direct regulation under the CAA. Again, like the CWA, the CAA relies heavily on state regulation and enforcement to carry out its air pollution control mission.<sup>123</sup> The CAA requires new stationary sources of air pollution to use the best technology available to control their emissions,<sup>124</sup> but unfortunately such a stringent requirement does not apply to new CAFOs. Thus, new CAFOs are not regulated in the same way the CAA controls emissions from other stationary sources, such as new factories, electric power plants, landfills, and other significant potential sources of air pollution.<sup>125</sup>

Similarly, in establishing ambient air quality standards for the nation’s airsheds, EPA published limits for only six airborne pollutants (particulates, ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead).<sup>126</sup> Notably, the list does not include ammonia or methane, which are common pollutants in the emissions from CAFOs.<sup>127</sup> Also, because CAFOs are not treated as stationary sources, the introduction of numerous CAFOs into an airshed with high quality air is not affected by the CAA requirement to “prevent significant deterioration.”<sup>128</sup> This “nondegradation” policy requires all stationary sources constructing new facilities in high quality airsheds to obtain a permit and meet an emission standard of “lowest achievable emission

119. *See id.*

120. *Id.*

121. 42 U.S.C. § 7410–11 (2018).

122. *See* 33 U.S.C. § 1362(14).

123. *See* 42 U.S.C. §§ 7411(i), 7412(l).

124. *Id.* § 7411(a)–(b).

125. *See id.* §§ 7411–7412.

126. *See id.* §§ 7408, 7409; *Criteria Air Pollutants*, EPA, <https://www.epa.gov/criteria-air-pollutants> [<https://perma.cc/W2LG-CN84>].

127. 42 U.S.C. §§ 7408, 7409; EPA, *supra* note 126.

128. *See id.* §§ 7470–7479.

rate” for the pollutants they emit.<sup>129</sup> Being exempt from this requirement is a big advantage for CAFOs because they are generally acknowledged to emit significant air pollutants that commonly include—besides obnoxious odors and some particulate matter—methane, hydrogen sulfide, ammonia, and possibly anti-biotic-resistant bacteria and other pathogens.<sup>130</sup>

It is this inability to apply key elements of the CAA to CAFOs that led environmental groups and public health experts to argue that emissions from CAFOs are a significant source of air quality degradation in certain specific regions around the country. For this reason, it is contended that they should be regulated as stationary sources. Treating CAFOs as stationary sources is an additional proposal to the longstanding argument that ammonia and methane should be added to the list of Criteria Pollutants monitored in all air sheds.<sup>131</sup> Every time proposals to amend the CAA to increase the regulation of CAFOs emissions are brought forward, however, strong political resistance arises from farm states’ representatives that stymies any action by Congress.<sup>132</sup> Without such an expansion of the CAA to designate CAFOs as stationary sources of air pollution and establish air quality standards for ammonia and methane, emissions from CAFOs are almost completely unregulated by the CAA. Although the CAA requires air quality monitoring for six listed air pollutants, it is my impression that emissions from CAFOs of any of the six regulated air pollutants are so localized they can almost never rise to a level that exceeds established air quality thresholds for a region.<sup>133</sup> These pollutant thresholds are set in State Implementation Plans approved by EPA for the regulation of air quality in designated regional airsheds.<sup>134</sup>

Currently, the EPA regulations do not authorize a reliable monitoring methodology for measuring harmful emissions escaping from CAFOs immediately into the ambient air around them.<sup>135</sup> Environmental advocates petitioned the EPA to urge the agency to directly regulate emissions from CAFOs like ammonia and methane, and to develop practical emission monitoring techniques to focus on local air pollution issues caused by CAFOs.<sup>136</sup> Again, because of strenuous farm state representatives in Congress, no action is expected on this front for the foreseeable future.

---

129. See *id.* §§ 7501–7502.

130. See HRIBAR, *supra* note 5, at 2–11.

131. See *id.* at 16.

132. See *id.* at 13–15.

133. See 42 U.S.C. § 7401(c) (2018).

134. *Id.*

135. See Dustin Till, *Environmental Groups Press for Federal Regulation of Air Emissions from Animal Feeding Operations*, MARTEN L. (Apr. 27, 2011), <https://web.archive.org/web/20120315164046/http://www.martenlaw.com/newsletter/20110427-af0-air-emissions-regulations> [<https://perma.cc/EBH3-AZC6>].

136. See Complaint for Declaratory and Injunctive Relief at 24–26, *Env’t Integrity Project v. EPA*, No. 1:16-cv-02203-ABJ, 2016 WL 6581149 (D.D.C. Nov. 4, 2016).

## V. STATE REGULATION OF CAFOS

## A. GENERAL ENVIRONMENTAL REGULATION

Long before CAFOs became the dominant method in the United States for raising most types of food animals and for producing eggs, all states had adopted state-level regulatory regimes for controlling water pollution and air pollution within the state.<sup>137</sup> These regulations typically started out as the domain of the State Health Department, and what regulation occurred was focused primarily on public health concerns.<sup>138</sup> Early regulation of public health threats in the rural countryside was not characterized by strenuous enforcement, against even egregious polluters.<sup>139</sup> In the 1960s and 1970s, most states responded to the so-called “environmental movement” by upgrading their environmental protection laws to extend their reach beyond public health threats to broader environmental quality concerns and they toughened their enforcement measures against violators.<sup>140</sup> Typically, the new laws established minimum standards for water quality in state waters and ambient air quality within state airsheds, but these statewide regulations were typically regarded as the regulatory floor.<sup>141</sup> Local governments were encouraged to add more demanding regulations if they needed to respond to special threats to local water quality or air quality.<sup>142</sup>

The advent of the federal CWA and the CAA in the early 1970s dovetailed with these reform efforts and brought the states within a nationwide system of federally-established effluent and emission control requirements, along with a set of national water quality standards and ambient air quality criteria. Except for the regulatory efforts necessitated by specific inclusion of CAFOs as point sources of water pollution in the CWA discussed earlier, very little of this general state environmental regulation was directed at the types of serious health and environmental problems CAFOs could cause their immediate rural neighbors. In part, this nonregulation was the result of the fact that any water pollution or air pollution generated by a CAFO stayed very local and did not enter a waterway to violate water quality standards or was never noticed in the monitoring of a regional airshed.<sup>143</sup> Even large CAFOs do not occupy very much land so the air shed surrounding them is typically more than large enough, depending on wind conditions, to make it difficult to detect airborne pollutants very far from the borders of the CAFO site. More problematic, enforcement of these types of general environmental protection laws tended to be reactionary in nature; they came into play only after some

---

137. See N. William Hines, *Nor Any Drop to Drink: Public Regulation of Water Quality Part I: State Pollution Control Programs*, 52 IOWA L. REV. 186, 196 (1966).

138. *Id.* at 203.

139. *Id.* at 204-05.

140. See N. William Hines, *A Decade of Nondegradation Policy in Congress and the Courts: The Erratic Pursuit of Clear Air and Clean Water*, 62 IOWA L. REV. 643, 647-49, 657 (1977).

141. *Id.* at 644-45.

142. *Id.* at 644, 665.

143. *Id.* at 698-99.

sort of environmental disaster occurred.<sup>144</sup> State environmental agencies typically sought to remediate known pollution problems and to punish the perpetrators,<sup>145</sup> not to prevent them from happening in the first place.

### B. STATE REGULATION SPECIFICALLY GOVERNING CAFOs

As CAFOs proliferated starting in the 1970s, and partly in response to the delegation to states of federal NPDES permit issuance authority, states experiencing rapid growth in CAFOs began enacting specific legislation and promulgating administrative regulations governing the siting and operation of CAFOs, including requiring detailed manure management plans.<sup>146</sup> Also during this era, some states amended or added to their right-to-farm laws to erect legal protections for CAFOs against neighbors' nuisance suits.<sup>147</sup> In this Section, an effort will be made to synthesize the laws and regulations affecting CAFOs in the ten states with the largest number of regulated animal feeding operations.<sup>148</sup>

The statutes and regulations focused on CAFOs in these ten states all cover most of the same general core topics, though not necessarily in this order: 1) basic information required in an application for a CAFO permit;<sup>149</sup> 2) design of the CAFO buildings;<sup>150</sup> 3) specifications for collection of animal wastes and storage basins;<sup>151</sup> 4) site setbacks from neighboring properties and from environmentally sensitive areas;<sup>152</sup> 5) construction standards for CAFO buildings;<sup>153</sup> 6) operating requirements;<sup>154</sup> 7) manure management plan, including monitoring of waste storage basins;<sup>155</sup> 8) standards for open land spreading of liquified manure, including setbacks from steep slopes, neighboring properties, parks, and water courses;<sup>156</sup> 9) protecting ground

144. *Id.* at 699.

145. Hines, *supra* note 137, at 200–07.

146. See, e.g., ENV'T INTEGRITY PROJECT, THREATENING IOWA'S FUTURE: IOWA'S FAILURE TO IMPLEMENT AND ENFORCE THE CLEAN WATER ACT FOR LIVESTOCK OPERATIONS 15–18 (2004), [http://www.environmentalintegrity.org/pdf/publications/Report\\_Threatening\\_Iowa\\_Future.pdf](http://www.environmentalintegrity.org/pdf/publications/Report_Threatening_Iowa_Future.pdf) [https://perma.cc/qJXS-KEZR].

147. During this period, the five states adopting special statutes to protect CAFOs from nuisance liability were Iowa, Oklahoma, Wyoming, Tennessee, and Kansas. More recently, North Carolina joined these states in enacting special legislation favoring CAFOs over neighbor's property rights in 2018 and 2019.

148. The ten states whose laws are cited (in order of the number of hogs in CAFOs as reported by EPA in 2018) are: Iowa; North Carolina; Minnesota; California; Texas; Nebraska; Georgia; Indiana; Arkansas; and Kansas.

149. See, e.g., N.C. GEN. STAT. § 143-215.10C (2021).

150. See, e.g., MO. CODE REGS. ANN. tit. 10, § 20-8.300 (2021).

151. See, e.g., NEB. REV. STAT. ANN. §§ 81-1504, 81-1505 (West, Westlaw through the end of the 1st Regular Session and the end of the 1st Special Session of the 107th Legislature (2021)).

152. See, e.g., 327 IND. ADMIN. CODE 19-12-3 (West, current with amendments received through the Indiana Weekly Collection, December 8, 2021).

153. See, e.g., IOWA ADMIN. CODE r.567-65.105(1) (2020).

154. See, e.g., MINN. R. 7020.2225 (2021).

155. See, e.g., GA. COMP. R. & REGS. 40-13-8.05 (2021).

156. See, e.g., *id.* 40-13-8.06.

water quality, where relevant;<sup>157</sup> and 10) closure requirements.<sup>158</sup> In addition, many states have express requirements for notifying neighbors and certain public entities within a specified distance from the proposed site when an application for a CAFO permit is filed.<sup>159</sup> At least one state has considered requiring more extensive treatment of collected animal wastes where the CAFO is large enough to justify the technology investment, but has not made much progress implementing this idea.<sup>160</sup>

Although public regulation of CAFOs among the states may focus on the same core issues, there are significant differences from state to state in the comprehensiveness of the regulations and how aggressively they are enforced with respect to some key regulatory provisions, many of which potentially affect the quality of life of CAFO neighbors. Most common differences among states concern requirements such as the extent of serious regulation applied to medium and small CAFOs,<sup>161</sup> distance of site setbacks from neighbors and sensitive areas,<sup>162</sup> degree of monitoring air quality within CAFO buildings and at the boundaries of the site,<sup>163</sup> level of monitoring of the capacity and stability of storage basins,<sup>164</sup> policing manure management plans,<sup>165</sup> and enforcement of setbacks and climatic restrictions on spreading liquified manure on farm fields.<sup>166</sup>

Between the two states with the largest number of hogs in CAFOs, Iowa and North Carolina, Iowa stands out for having relatively weak state laws and regulations governing the approval, siting, operation, and monitoring of CAFOs. North Carolina, on the other hand, since the late 1990s has enforced a moratorium on new hog CAFOs unless they provide advanced treatment of hog wastes they generate. Existing CAFOs, however, have been allowed to expand without close regulatory oversight. In addition, both states have experienced a great deal of pressure from the CAFO industry to amend their right-to-farm laws to nullify parts of their nuisance law enforcement with

---

157. See, e.g., CAL. CODE REGS. tit. 27, § 22564 (2021).

158. See, e.g., MINN. R. 7020.2025 (2021).

159. See, e.g., MO. ANN. STAT. § 640.715 (West, Westlaw current through the end of the 2021 First Regular and First Extraordinary Sessions of the 101st General Assembly).

160. See An Act To (1) Codify and Make Permanent the Swine Farm Animal Waste Management System Performance Standards that the General Assembly Enacted in 1998, (2) Provide for the Replacement of a Lagoon that is an Imminent Hazard, (3) Assist Farmers to Voluntarily Convert to Innovative Animal Waste Management Systems, and (4) Establish the Swine Farm Methane Capture Pilot Program, 2007 N.C. Sess Laws 523.

161. See, e.g., IOWA CODE § 459.303 (2021).

162. See, e.g., 29 NEB. ADMIN. CODE § 2-008.05F (2021).

163. See, e.g., MINN. STAT. ANN. § 116.0713 (West, Westlaw through all legislation from the 2021 Regular Session and 1st Special Session).

164. See, e.g., 327 IND. ADMIN. CODE § 19-12-4 (West, current with amendments received through the Indiana Weekly Collection, December 8, 2021).

165. See, e.g., ARK. CODE R. § 138.00.22-2203.5 (LexisNexis, LEXIS through Nov. 15, 2021).

166. See, e.g., IOWA CODE § 459.204 (2021).

respect to CAFOs to make the state more attractive for investment in animal feeding operations.<sup>167</sup>

### 1. Iowa's CAFO Regulations

In administering its regulation of CAFOs, Iowa uses an increasingly controversial “Master Matrix,” which sets out a 44-point system to evaluate whether an applicant is legally entitled to receive a CAFO permit.<sup>168</sup> Under Iowa regulations, the strictness of regulations applied to CAFOs depends on their size.<sup>169</sup> CAFOs feeding 2,500 or more hogs are the most tightly regulated, medium-sized CAFOs feeding 1,250 to 2,499 hogs are less strictly regulated, and small CAFOs feeding 1,249 hogs or less are subject to the least regulation.<sup>170</sup> The Iowa Master Matrix reportedly yields approximately a 97 percent approval rate for first-time CAFO applicants of all sizes, and it is administered by the Iowa Department of Natural Resources (“DNR”) under a practice that assures that the few failing applicants are effectively coached by its staff to be sure to succeed the next time they apply.<sup>171</sup>

Another problem with the administration of the Iowa Master Matrix system in practice is that the DNR handles the approval of each CAFO separately based on its ownership. So long as each CAFO is owned by a different person or entity, there is no restriction preventing several CAFOs from locating together on a small tract of land owned by one farm family.<sup>172</sup> Iowa hog farmers have learned how to game the Master Matrix system by proposing sequential approval for multiple lightly regulated small or medium-sized CAFOs owned by LLCs in the names of different family members, with all the CAFOs located close together on a single-family farm. Such clusters of CAFOs are granted a series of separate permits<sup>173</sup> even though the combined pollution threat these separate small lightly regulated CAFOs pose for neighbors can be much greater than the threat that would be posed by a single more tightly regulated large CAFO in the same location.

---

167. See *infra* Sections VIII.A–B (detailing the Iowa and North Carolina experiences in upgrading their right-to-farm laws).

168. See IOWA DEP’T NAT. RES., DETAILS OF SCORING THE MASTER MATRIX (2012), <https://www.iowadnr.gov/Portals/idnr/uploads/afo/afo-files/details-scoring-matrix.pdf> [<https://perma.cc/6W88-VFVX>].

169. See *AFO Construction Permits*, IOWA DEP’T NAT. RES., <https://www.iowadnr.gov/EnvironmentalProtection/Animal-Feeding-Operations/AFO-Construction-Permits#16368354-permitted> [<https://perma.cc/V59P-WFWA>].

170. See *id.*

171. *Id.*; see also Donnelle Eller, *Petition to Tighten Rules on Livestock Facilities in Iowa Fails*, DES MOINES REG. (Sept. 18, 2017, 5:17 PM), <https://www.desmoinesregister.com/story/money/2017/09/18/petition-make-harder-build-livestock-facilities-iowa-fails/677775001> [<https://perma.cc/KgT3-DWFZ>].

172. See *Reality Check: The LLC Loophole Is Still NOT Closed*, JEFFERSON CNTY. FARMERS & NEIGHBORS, INC. (Jan. 20, 2021), <https://www.jfaniowa.org/post/2020/09/04/reality-check-the-llc-loophole-is-still-not-closed> [<https://perma.cc/D2FE-UPV4>].

173. *Id.*

The Iowa Master Matrix system is also administered in a manner that relegates local governments to a mere advisory role. County officials can strongly recommend against granting a specific CAFO permit,<sup>174</sup> but DNR officials are under no compulsion to accept the advice offered by local governments. Where such disagreements occur, the DNR permit authorities can and do disregard local advice in making a decision to approve a CAFO application recommended against by the county government where the CAFO is located.<sup>175</sup> In 2018, county officials, frustrated by being shut out of the CAFO approval process, proposed that the Iowa legislature adopt a temporary moratorium on new CAFO permits to allow time to review and upgrade the operation of the Master Matrix system.<sup>176</sup> Although renewed annually, this call for a moratorium has failed to gain legislative serious support.<sup>177</sup>

## 2. North Carolina's CAFO Regulations

North Carolina has long been a national leader in pork production. The state's generally favorable legal climate for CAFOs was altered dramatically, however, after the catastrophic collapse of a large waste storage lagoon in 1995. This disaster released 25 million gallons of decomposing hog wastes into the nearby New River, causing massive fish kills and contaminating popular recreational waters.<sup>178</sup> This highly publicized calamity led the state to adopt a moratorium on the approval of new CAFOs in 1997.<sup>179</sup> Ten years later North Carolina enacted the Swine Farm Environmental Performance Act of 2007,<sup>180</sup> which officially ended the moratorium, but the Act essentially banned new hog CAFOs from using the traditional waste disposal system that relied on lagoons and land spreading of liquefied wastes. The new statute required all new hog CAFOs to adopt “[e]nvironmentally [s]uperior [t]echnologies”<sup>181</sup> to dispose of wastes from hog CAFOs.

174. See Eller, *supra* note 171.

175. See Merchant & Osterberg, *supra* note 4 (reporting that Iowa now has 23 million hogs in CAFOs with the “Fecal Equivalent Population” of 168 million people, and recent polls show 80 percent of Iowans are concerned about the polluting impacts on nearby communities).

176. See Donnelle Eller, *No More Livestock Confinements Until Iowa Water Improves*, Group Says, DES MOINES REG. (Jan. 17, 2018, 11:07 AM), <https://www.desmoinesregister.com/story/money/agriculture/2018/01/16/coalition-calls-iowa-lawmakers-support-cafo-moratorium-until-water-quality-improves/1034756001> [https://perma.cc/UY55-SN2D].

177. See William Petroski & Brianne Pfannenstiel, *What Ideas did the 2018 Iowa Legislature Leave to Die?*, DES MOINES REG. (Oct. 22, 2018 5:52 PM), <https://www.desmoinesregister.com/story/news/politics/2018/05/05/transgender-guns-court-classic-cars-fossils-iowa-legislature-killed-fossils/456056002> [https://perma.cc/E2F4-W572].

178. See Smart, *supra* note 51, at 2109.

179. *Id.* at 2107.

180. See An Act To (1) Codify and Make Permanent the Swine Farm Animal Waste Management System Performance Standards that the General Assembly Enacted in 1998, (2) Provide for the Replacement of a Lagoon that is an Imminent Hazard, (3) Assist Farmers to Voluntarily Convert to Innovative Animal Waste Management Systems, and (4) Establish the Swine Farm Methane Capture Pilot Program, 2007 N.C. Sess Laws 523.

181. *Id.*

North Carolina's enactment of its 2007 Swine Farm Environmental Performance Act was the first and only time a state legislature recognized the environmental and social inadequacies of the conventional waste management practices of hog CAFOs and required all new hog CAFOs to adopt more environmentally responsible animal waste management technology. North Carolina followed through on this effort to upgrade hog CAFOs waste disposal practices by creating the North Carolina State Animal and Poultry Waste Management Center to support development of the needed superior animal waste management technologies.<sup>182</sup> The Center sent out a national RFP to researchers to submit proposals for developing and demonstrating superior waste management technologies to meet five criteria<sup>183</sup> specified by the Center. The Center's five Criteria for a superior technology were:

1. Eliminates the discharge of animal waste to surface waters and groundwaters . . . ;
2. Substantially eliminates atmospheric emissions of ammonia;
3. Substantially eliminates the emission of odor that is detectable beyond the boundaries of the . . . land on which the [CAFO] is located;
4. Substantially eliminates the release of disease-transmitting vectors and airborne pathogens; and
5. Substantially eliminates nutrient and heavy metal contamination of soil and groundwater.<sup>184</sup>

It would be difficult to argue that these five Criteria are not exactly the results that society generally and neighbors in particular want from hog CAFOs. For any state with many hog CAFOs, these Criteria form the basis of a sound new regulatory policy.

None of the proposed technologies proved to be the "magic bullet" the Center hoped to discover, but not because none of them could do the job. Rather, the legislation requiring new hog CAFOs to use environmentally superior waste disposal technology contained an overriding requirement that severely limited its force—no matter how environmentally effective a new technology might be, it could not be imposed as a requirement on new hog CAFO unless it was determined to be technically, operationally, and economically feasible for use by North Carolina hog farmers.<sup>185</sup> Most of the technologically innovative solutions proposed to the Center relied on some type of aerobic or anaerobic digester which can be expensive to install and operate, and for that reason they were deemed not economically feasible for installation on even above average sized North Carolina hog CAFOs. It is worth noting that neither aerobic digesters or anaerobic digesters are a new technology. They have been in use in other waste disposal contexts for generations, often to treat household wastes generated by small rural

---

182. See Merchant & Osterberg, *supra* note 118, at 22–23.

183. *Id.*

184. *Id.* at 22. The Center focused on supporting what it considered the 16 most promising proposals.

185. *Id.*

communities. The proposals received by the Center involving the use of digesters were simply adaptations of the known technology to the safe disposal of hog wastes.<sup>186</sup>

As of the last report, only two very large North Carolina hog CAFOs had successfully demonstrated the effectiveness of their newly developed waste disposal technology and gained state approval to construct and operate a new hog CAFO.<sup>187</sup> Over time, North Carolina's "technology forcing" regulation was also weakened gradually to the point that hog CAFOs are allowed to not only add hogs to existing facilities, but also to activate and expand idle facilities without making any improvements to their waste management systems.<sup>188</sup> Slowing down or stopping approval of new CAFOs in North Carolina was roundly condemned by the CAFO industry, but it apparently only slowed not stop steady growth in the number of hogs confined in North Carolina's CAFOs.<sup>189</sup>

### 3. Other States' CAFO Regulations

Not all the other eight states with the largest CAFO numbers have chosen to join Iowa and North Carolina in their race to the regulatory bottom. A few states have become more aggressive in their regulatory efforts to prevent CAFOs from inflicting unreasonable harm on rural neighbors. Notably, two other top hog producing states, Missouri and Minnesota, upgraded their state laws regulating CAFOs in 2019 and 2004 respectively, by adding major protections to neighboring property owners.<sup>190</sup> Missouri's 2019 legislation mandated all CAFOs regardless of size must operate with a state permit, required a detailed notice to neighbors of an application to build a new CAFO or expand an existing one, and clarified that the setback rules for surface application of liquified manure applied to third parties to whom the natural fertilizer is sold or donated.<sup>191</sup> Minnesota amended its right-to-farm law to limit its protection for hog CAFOs against neighbors' nuisance suits to operations housing less than 1,000 hogs.<sup>192</sup>

Due to space considerations, this Article will not go into detail about the regulatory practices of those states that appear to be conscientiously engaged in improving their regulation of CAFOs. However, it is important to note that the experiences of Iowa and North Carolina foreshadow what could happen to CAFO regulation in those states should the political climate change to emphasize the economic importance of CAFOs and the states weaken their

---

186. *Id.* at 22–23.

187. *See* Smart, *supra* note 51, at 2107 n.68.

188. *Id.*

189. EPA Statistics from 2018 show that North Carolina has 1,222 CAFOs eligible for NPDES permits, but only 14 such permits have been issued. *See* EPA, *supra* note 38.

190. *See* MO. CODE REG. ANN. tit. 10, § 20-6.300 (2021); MINN. STAT. ANN. § 561.19 (West, Westlaw through all legislation from the 2021 Regular Session and 1st Special Session).

191. *See* 2019 MO REG TEXT 498366 (NS); MO. CODE REG. ANN. tit. 10, § 20-6.300.

192. *See* Agriculture—Loan Programs, Electronic Grain Purchase Documents, 2004 Minn. Sess. Law Serv. ch. 254 (S.F. 2428) (West), MINN. STAT. ANN. § 561.19.

legislative and regulatory enforcement in ways intended to attract more CAFOs.

## VI. REGULATION OF CAFOS BY LOCAL GOVERNMENTS

When states began enacting legislation to regulate water pollution and air quality in the 1960s, the statutes routinely established regulatory floors for acceptable water and air quality.<sup>193</sup> In adopting minimum statewide standards for water and air quality, most such environmental legislation expressly contemplated that counties and cities were free, and perhaps expected, to adopt stricter quality standards as necessary to meet local needs.<sup>194</sup> This general policy of allowing local governments to use their Home-Rule authority to enact water and air quality requirements stricter than minimum state standards is still the norm in most states. Starting in the 1990s, however, a few states, competing for new CAFOs to locate in their state, have dropped this *laissez faire* posture, and sought to remove from local governments all such regulatory authority at it relates to CAFOs.

Iowa was the first state to make this change, and surprisingly it was the result of a 1998 judicial decision. In *Goodell v. Humboldt County*<sup>195</sup> the Iowa Supreme Court considered the enforceability of a set of air quality standards adopted by the county to detect air pollutants escaping from hog CAFOs. The county ordinance set maximum limits on for carbon dioxide, hydrogen sulfide, methane, carbon monoxide, and ammonia, as monitored at the boundary of the hog CAFO. In ruling these regulations were not justified under the county's Home Rule powers, the Court adopted a controversial "implied preemption" rule,<sup>196</sup> based on Iowa Code 657.11, which limited CAFOs liability for private nuisance actions.<sup>197</sup> A forceful dissent pointed out that the new "implied preemption" analysis was blatantly inconsistent with the Court's longstanding policy of seeking to reconcile challenged county or city Home Rule-based regulations with state law whenever possible.<sup>198</sup> The dissent could also have pointed out that the Iowa Code section cited by the majority opinion, 657.11, dealt with curtailing private nuisance suits and had nothing to do with public regulation by local governments. Nevertheless, the die was cast and an ambitious county scheme to regulate the effluents and emissions from local hog CAFOs was struck down as unconstitutional.<sup>199</sup>

Unsure of the durability of the Court's "implied preemption" approach, CAFO supporters persuaded the Iowa General Assembly to adopt an express preemption amendment to the Home Rule statute making clear that local governments no longer had any authority to regulate the effluents or

---

193. See Hines, *supra* note 140, at 644–45.

194. See *id.* at 654–55, 665.

195. See generally *Goodell v. Humboldt Cnty.*, 575 N.W.2d 486 (Iowa 1998) (holding "the county's authority to enact the[] ordinances ha[d] been preempted by the legislature").

196. *Id.* at 493, 506–07.

197. IOWA CODE § 657.11 (2021).

198. *Goodell*, 575 N.W.2d at 511–13 (Snell, J., dissenting).

199. *Id.* at 507–08 (majority opinion).

emissions emanating from livestock CAFOs.<sup>200</sup> This preemptive statute was upheld by the Iowa Supreme Court in the 2004 case, *Worth County Friends of Agriculture v. Worth County*.<sup>201</sup> The Court stated: “Our legislature intended livestock production in Iowa to be governed by statewide regulation, not local regulation.”<sup>202</sup>

In 2017, North Carolina followed Iowa’s example and adopted a similar statute preempting all local regulation of livestock CAFOs.<sup>203</sup> The Missouri legislature also adopted a similar statutory preemption of local regulation of hog CAFOs in 2019.<sup>204</sup> The Missouri statute that has been challenged as unconstitutional was challenged in the Missouri Supreme Court.<sup>205</sup>

Thus, the three top states nationally in hog production have legislatively banned any local regulation of livestock CAFOs, even regulations that are clearly addressing public health concerns. This preemption is a testament to the political power of the hog industry in those states. Whether other states with large numbers of CAFOs will follow suit with preemptive legislation remains to be seen.

## VII. COMMON LAW NUISANCE PROTECTION

Perhaps there was once a time in Anglo-American history when one landowner could engage in activities on his own land that inflicted severe harm upon a neighboring landowner without concern about incurring legal liability. But if such a time ever existed, it was in the very distant past. Law students in my Property Rights class study *William Aldred’s Case*,<sup>206</sup> an English nuisance law decision in 1611. In this classic case, a landowner named Thomas Benton raised hogs on his land adjacent to Aldred’s rural residence.<sup>207</sup> Benton erected a sizeable hog sty immediately across the property line from Aldred’s home, causing his hogs to congregate just outside Aldred’s open windows, to Aldred’s great discomfort.<sup>208</sup> Aldred brought a nuisance suit alleging that by gathering large numbers of hogs so close to his home, Benton’s new sty seriously corrupted the air in and around his land, thereby committing a nuisance by unreasonably interfering with the use and enjoyment of his property.<sup>209</sup> The English appellate court agreed with Aldred

200. See IOWA CODE § 331.304A.

201. *Worth Cnty. Friends of Agric. v. Worth Cnty.*, 688 N.W.2d 257, 264 (Iowa 2004).

202. *Id.*

203. N.C. GEN. STAT. ANN. § 153A-340 (West 2017) (repealed 2020).

204. Tom Coulter, *New CAFO Law Divides Farmers Over Future of Agriculture, Environment in Missouri*, COLUMBIA MISSOURIAN (Aug. 7, 2019), [https://www.columbiamissourian.com/news/state\\_news/new-cafo-law-divides-farmers-over-future-of-agriculture-environment-in-missouri/article\\_100544e2-b55a-11e9-896c-e384d1d22d9c.html](https://www.columbiamissourian.com/news/state_news/new-cafo-law-divides-farmers-over-future-of-agriculture-environment-in-missouri/article_100544e2-b55a-11e9-896c-e384d1d22d9c.html) [<https://perma.cc/7B4Y-Y2XD>].

205. *Id.*

206. See generally *William Aldred’s Case* (1611) 77 Eng. Rep. 816; 9 Co. Rep. 57 b (holding that the plaintiff should recover damages due to defendant erecting a swine sty).

207. *Id.* at 817.

208. *Id.*

209. *Id.*

and affirmed a lower court nuisance judgment against Benton for 40£ in damages.<sup>210</sup> In its opinion, the English court expressly rejected Benton's impassioned argument that anyone who chooses to live in the rural countryside "ought not to have so delicate a nose, that he cannot bear the smell of hogs."<sup>211</sup> This argument is still regularly made today in U.S. farm nuisance cases, usually without any greater success than it enjoyed in England over four centuries ago.<sup>212</sup>

Under U.S. constitutional law, landowners' property rights are defined almost exclusively by state law.<sup>213</sup> Until the development of modern industrialized agriculture, particularly CAFOs, the historic legal limitation on land use posed by nuisance law (as applied in the 400-year-old *Aldred's* case described above) was universally recognized and enforced by state courts across the United States.<sup>214</sup> In the last half century, however, economically powerful agricultural interests exerted political pressure on state legislatures to protect industrialized agricultural practices that might produce nuisance lawsuits by aggrieved neighbors. This was first done in the early 1980s through enactment of generic right-to-farm laws, adopted in one form or another by all 50 states.<sup>215</sup> More recently, a few states seeking to gain a competitive advantage in attracting CAFOs have enacted second-generation right-to-farm statutes purporting to grant CAFOs special protections from nuisance liability to neighbors.<sup>216</sup> Some of these newer statutes conferring special nuisance protections on CAFOs are still undergoing constitutional challenges,<sup>217</sup> so the end of this story is yet to be written, but the message is clear. When state legislatures set out to promote a favored type of industrialized agriculture within their state, they are willing to enact legislation reducing or eliminating traditional property rights of neighbors protected by nuisance law. Thus far, among the 50 states, only the Iowa Supreme Court has overturned such legislation designed to protect CAFOs, ruling both a general right-to-farm

210. *Id.* at 817, 822. One might be tempted to say 40£ in damages is a petty penalty, but converted to 2020 value, 40£ would be equivalent to over \$200,000 in damages today.

211. *Id.* at 817.

212. *See, e.g.,* *Weinhold v. Wolff*, 555 N.W.2d 454, 465–66 (Iowa 1996) (awarding \$45,000 in damages to landowners neighboring a commercial hog feeding facility).

213. *See* *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1030 (1992).

214. *See* DAN B. DOBBS, PAUL T. HAYDEN & ELLEN M. BUBLICK, *HORNBOOK ON TORTS* 733–44 (2d ed. 2016); DANIEL R. MANDELKER ET AL., *PLANNING AND CONTROL OF LAND DEVELOPMENT: CASES AND MATERIALS* 63–69 (8th ed. 2011).

215. *See, e.g.,* IOWA CODE § 352.11 (2021); MINN. STAT. ANN. § 561.19 (West, Westlaw through all legislation from the 2021 Regular Session and 1st Special Session); NEB. REV. STAT. ANN. § 2-4403 (West, Westlaw through the end of the 1st Regular Session and the end of the 1st Special Session of the 107th Legislature (2021)). *See also* Kitt Tovar, *Update on Right-to-Farm Legislation, Cases, and Constitutional Amendments*, IOWA ST. UNIV. CTR. FOR AGRIC. L. & TAX'N (May 28, 2019), <https://www.calt.iastate.edu/article/update-right-farm-legislation-cases-and-constitutional-amendments> [<https://perma.cc/56V5-NYQ8>].

216. *See, e.g.,* IOWA CODE § 657.11 (2021); N.C. GEN. STAT. §§ 106-701, 702 (2021).

217. *See, e.g.,* *Honomichl v. Valley View Swine*, 914 N.W.2d 223, 226–27, 238–39 (Iowa 2018) (challenging nuisance protections for CAFOs).

law<sup>218</sup> and a second generation right-to-farm statute insulating CAFOs from nuisance liability were unconstitutional takings of neighbors' property rights without just compensation.<sup>219</sup>

The legal maxim “[u]se your property so as not to injure the property of another”<sup>220</sup> has been an important principle in Anglo-American property law for nearly a millennium.<sup>221</sup> This nuisance principle is the source of the crucial private property right to be free from unreasonable harm inflicted by a neighbors' intrusive use of their property.<sup>222</sup> Every state in the United States recognizes and enforces nuisance law in its property and tort common law,<sup>223</sup> and many states have codified this protection of neighbors' rights in their statutes.<sup>224</sup> So deeply ingrained in state law is the nuisance principle that typically the legislation codifying it is interpreted by courts to leave ample room for the common law of nuisance to continue to evolve organically.<sup>225</sup>

Most states recognize two types of private nuisances: nuisances *per se* and *per accidens*. A nuisance *per se* is a wrongful use of land that is a legal nuisance under all circumstance.<sup>226</sup> A nuisance *per accidens* is the more common type of nuisance in that it is typically a land use that is not inherently harmful but causes significant harm because of its location and the manner in which it is conducted.<sup>227</sup> Most state nuisance laws make clear that while a lawful business, like operation of a CAFO, may not be a nuisance *per se*, it can nevertheless be adjudged a nuisance *per accidens*, depending on the degree of harm caused and the other facts on the ground.<sup>228</sup> As observed earlier, in states where state and local regulation of CAFOs is weak, suing a polluting CAFO for violating nuisance law may be a neighbors' only practical recourse to try to abate or reduce the health and environmental harm that a nearby CAFO caused them. It is for this reason the continued enforcement of state nuisance law is so vital to protecting CAFO neighbors' property rights and is regarded as such an impediment to its expansion by the CAFO industry.<sup>229</sup>

218. See *Bormann v. Bd. of Supervisors*, 584 N.W.2d 309, 314–16, 321–22 (Iowa 1998).

219. See *Gacke v. Pork Xtra, L.L.C.*, 684 N.W.2d 168, 170–71 (Iowa 2004).

220. The original Latin maxim is “sic utere tuo ut alienum non lædas.” William Aldred’s Case (1611) 77 Eng. Rep. 816, 821; 9 Co. Rep. 57 b, 59 a.

221. See, e.g., *id.*

222. *Id.* at 821–22.

223. See DAN B. DOBBS, PAUL T. HAYDEN & ELLEN M. BUBLICK, *THE LAW OF TORTS* §399 (2d ed. June 2020 update).

224. See, e.g., IOWA CODE § 657.1 (2021).

225. See *Helmkamp v. Clark Ready Mix Co.*, 214 N.W.2d 126, 129–30 (Iowa 1974) (explaining that “our [nuisance] statute does not abrogate the common law”).

226. David R. Gillay, *Oklahoma’s Concentrated Animal Feeding Operations Act: Balancing the Interests of Landowners with the Exponential Growth of the Hog Industry*, 35 TULSA L.J. 627, 632–33 (2000).

227. *Id.*

228. *Id.* at 633.

229. See IOWA CODE § 657.11A(1) (2021) (statement of findings and purpose indicative of legislative intent).

States vary somewhat in the way they define what constitutes a nuisance and what remedies are available to a winning nuisance plaintiff. For example, the Restatement Second of Torts instructs courts to conduct a “gravity of the harm” against social “utility” balance<sup>230</sup> to determine whether the defendant’s use of their property constitutes a nuisance to the plaintiff’s land. Under the Restatement, use of one persons’ land is legally a nuisance to a neighboring landowner only if the gravity of the harm to the plaintiff’s land exceeds the social utility of the defendant’s use of their property.<sup>231</sup> The Restatement then sets forth several factors that courts should consider in weighing the harm against the utility, such as which use was instituted first, the character of the neighborhood, the seriousness of the harm, and how easily it can be prevented.<sup>232</sup> The Restatement approach to detecting a nuisance is rarely followed by state courts. The Restatement analysis is criticized as making nuisance determinations too unpredictable. It is also faulted for recognizing as a practical matter that some nuisance sources are just too big and important to the larger community to be subject to legal nuisance constraints in favor of a single private plaintiff.<sup>233</sup>

Many state courts adopted their nuisance jurisprudence long before the Restatement was published. Most of them do not follow the Restatement’s recommended balancing analysis to determine the existence of a nuisance. Nuisance law as administered by the Iowa courts is a good example. Long before the Restatement of Torts was promulgated, Iowa courts adopted their own legal tests to determine whether a nuisance existed.<sup>234</sup> They did not engage in a balancing of social utility against the gravity of the harm, but rather employed a simple three-part test: 1) which use was commenced first; 2) what is the character of the neighborhood; and 3) how severe is the harm.<sup>235</sup> In Iowa, nuisance cases involving hog CAFOs are typically situated in the rural countryside—where a wide variety of land uses may be appropriate—so assuming the harm done to the plaintiff is substantial, the land use that was commenced first tends to be the consistent winner.<sup>236</sup> Other courts apply some combination of the Restatement balance along with other specific local factors, but most states make priority of use, character of the surrounding neighborhood, and the severity of the harm the determinative factors in identifying a legal nuisance.<sup>237</sup> While the Restatement makes “Coming to the Nuisance”<sup>238</sup> (e.g., building a new rural residence too close to an existing

---

230. See RESTATEMENT (SECOND) OF TORTS §§ 826–30 (AM. L. INST. 1979).

231. *Id.* § 826.

232. *Id.* §§ 827–28.

233. See John E. Bryson & Angus Macbeth, *Public Nuisance, the Restatement (Second) of Torts, and Environmental Law*, 2 Ecology L.Q. 241, 269–73 (1972).

234. See *Schloufelt v. Vinton Farmers’ Supply Co.*, 109 N.W.2d 695, 698–700 (Iowa 1961).

235. *See id.*

236. *See, e.g., Patz v. Farmegg Prods., Inc.*, 196 N.W.2d 557, 561 (Iowa 1972).

237. *See, e.g., Bove v. Donner-Hanna Coke Corp.*, 258 N.Y.S. 229, 231–33 (N.Y. App. Div. 1932).

238. RESTATEMENT (SECOND) OF TORTS § 827 cmt. g (AM. L. INST. 1979).

CAFO) only one factor among many for a court to consider, right-to-farm laws and a number of courts applying common law principles make it a determinative factor in denying a plaintiff's nuisance claim.<sup>239</sup>

The range of remedies available to a winning nuisance plaintiff are much the same across the states.<sup>240</sup> They typically include: abatement of the nuisance by an injunction; a one-time award of damages for permanent loss in property value caused by the nuisance; compensatory damages for physical injuries including medical expenses (and possibly recovery of special damages for emotional or psychological suffering); and punitive damages in cases of egregious willfulness on the part of the defendant.<sup>241</sup> Until the middle of the last century, most state courts granted winning nuisance plaintiffs injunctive relief on proof that the nuisance injuries were substantial.<sup>242</sup> This practice changed with the advent of the "Relative Hardship Balance" advocated by the Restatement (Second) of Torts.<sup>243</sup> Because injunctions were a form of equitable relief, the Restatement asserted that courts should not grant injunctive relief unless the remedy at law was definitely inadequate and the relative hardship balance clearly favored the plaintiff.<sup>244</sup> In this balancing step, the relative hardship to the defendant included the potential effect on third parties, such as employees, suppliers, and the local community's economy, along with adverse effects on the public at large.<sup>245</sup> Most state courts adopted this recommendation by the Restatement and it became rare for a winning nuisance plaintiff to receive injunctive relief against polluting factories or other locally important businesses, where closing them down would impose serious economic harm on those dependent on their continuous operation.<sup>246</sup> As nuisance verdicts against hog CAFOs began to be awarded in the late twentieth century, this reluctance by state courts to grant injunctive relief was regularly applied to CAFOs, particularly in states actively recruiting CAFO business to bolster their farm economies.<sup>247</sup> When courts deny injunctive relief, they commonly give the plaintiff a one-time damages award for the

---

239. See DAN B. DOBBS, PAUL T. HAYDEN & ELLEN M. BUBLICK, *TORTS AND COMPENSATION: PERSONAL ACCOUNTABILITY AND SOCIAL RESPONSIBILITY FOR INJURY* 682 (7th ed. 2013); see, e.g., *Spur Indus., Inc. v. Del E. Webb Dev. Co.*, 494 P.2d 700, 707 (Ariz. 1972) ("Were Webb the only party injured, we would feel justified in holding that the doctrine of 'coming to the nuisance' would have been a bar to the relief asked by Webb . . .").

240. See DAN B. DOBBS & CAPRICE L. ROBERTS, *LAW OF REMEDIES: DAMAGES—EQUITY—RESTITUTION* 528–44 (3d ed. 2018).

241. See, e.g., *Weinhold v. Wolff*, 555 N.W.2d 454, 465–67 (Iowa 1996) (describing some of these remedies in detail).

242. See, e.g., *Boomer v. Atl. Cement Co.*, 257 N.E.2d 870, 874–75 (N.Y. 1970).

243. RESTATEMENT (SECOND) OF TORTS §§ 941–43 (AM. L INST. 1979).

244. *Id.* § 941.

245. *Id.* § 942.

246. See, e.g., *Riter v. Keokuk Electro-Metals Co.*, 82 N.W.2d 151, 159–62 (Iowa 1957).

247. See, e.g., *Gacke v. Pork Xtra, L.L.C.*, 684 N.W.2d 168, 171–72 (Iowa 2004) (district court below denied injunctive relief).

permanent loss in property value suffered because of the neighboring nuisance.<sup>248</sup>

One consequence of modern courts' general reluctance to grant injunctive relief against a losing nuisance defendant, except in cases of extremely bad behavior, is the proliferation of permanent damages awards to winning nuisance plaintiffs in lieu of an injunction. A crucial part of this practice, however, is the understanding that when the losing defendant pays such permanent damages the defendant is generally ruled to have acquired an easement to continue to cause the same level of harm to the neighbor in the future with impunity.<sup>249</sup> What this means for the winning plaintiff is that accepting permanent damages for their loss in property value caused by the nuisance entails the surrender of a valuable property right to the defendant in the form of an easement. As a result, the plaintiff must continue to suffer the same level of nuisance harm indefinitely without further legal recourse. What it means to a CAFO losing a nuisance suit, where the court awards permanent damages to the plaintiff for loss in property value, is that the losing CAFO acquires an easement to continue to inflict the same level of nuisance harm in perpetuity. Thus, through losing a nuisance suit, the CAFO in one sense wins because it acquires at a judicially determined price a court-created easement to pollute that the plaintiff might never have surrendered voluntarily.

Although critics question the constitutionality and fairness of courts routinely awarding permanent damages instead of injunctions,<sup>250</sup> a clear majority of recent nuisance decisions across the country have approved this judicially compelled exchange of money damages for an easement to continue polluting the plaintiff's land.<sup>251</sup> Like any other easement, this judicially-established easement is transferable to later owners of the CAFO and it binds whomever succeeds ownership of the neighboring servient estate.<sup>252</sup> The scope of the easement, however, is strictly limited to the facts of the nuisance case from which it arose.<sup>253</sup> If the nuisance harm increases significantly above what it was at the time of the court decision that created it, the CAFO holding the easement is vulnerable to a later suit by the aggrieved neighbor on the ground that the CAFO has violated the scope of the easement, the same as it would if the easement was created in a voluntary transfer.<sup>254</sup>

---

248. See *Boomer v. Atl. Cement Co.*, 257 N.E.2d 870, 874 (N.Y. 1970) ("Where a nuisance is of such a permanent and unabatable character that a single recovery can be had, including the whole damage past and future resulting therefrom, there can be but one recovery.").

249. See *id.* at 874-75.

250. See Doug Rendleman, *Rehabilitating the Nuisance Injunction to Protect the Environment*, 75 WASH. & LEE L. REV. 1859, 1888-89 (2018).

251. See MANDELKER ET AL., *supra* note 214, at 71-74.

252. *Id.*

253. *Id.*

254. See, e.g., *Farmer v. Ky. Utils. Co.*, 642 S.W.2d 579, 580-81 (Ky. 1982).

Besides permanent damages for loss in property value, a nuisance plaintiff is generally allowed to recover compensatory damages for personal injuries or indirect harms suffered.<sup>255</sup> The first category of compensatory personal damages is almost always recoverable if they can be satisfactorily proved.<sup>256</sup> Typically, these damages would include medical expenses for physical illness, lost wages for inability to work, and lodging and travel costs, if the plaintiffs were forced to vacate their property because of the severe nature of the pollution experienced.<sup>257</sup> Where special or indirect damages are allowed, they would include compensation for personal discomfort, emotional distress, mental anguish, and psychological suffering caused by continuous exposure to the CAFO nuisance.<sup>258</sup> It is precisely these types of subjective personal recoveries that recent statutes in North Carolina and Iowa limiting CAFOs' liability for nuisance damages are intended to prohibit or at least to cap.<sup>259</sup>

Theoretically, a CAFO operator inflicting wanton, malicious, or reprehensible nuisance harm on neighbors could also be liable for punitive damages intended to punish such outrageous or reckless conduct and to deter it from happening in the future.<sup>260</sup> Although punitive damages are often sought against CAFOs by aggrieved neighbors, courts rarely impose them for any type of nuisance harm.<sup>261</sup> A recent study reviewed all the punitive damages case in the United States over a ten-year period. There were slightly over 500 cases studied in which courts awarded punitive damages to plaintiffs seeking them, and only a handful of these cases did a court award punitive damages for a nuisance.<sup>262</sup>

#### VIII. AMENDMENT OF RIGHT-TO-FARM LAWS TO PROTECT CAFOS

One additional factor courts must often consider in resolving a neighbor's nuisance complaint against a CAFO is the possible application of a so-called "right-to-farm" law in the state. All 50 states have some form of right-to-farm law on the books,<sup>263</sup> most of them adopted during a short period of time between 1978 and 1983.<sup>264</sup> Although the specific provisions and the

---

255. See *Gacke v. Pork Xtra, L.L.C.*, 684 N.W.2d 168, 175 (Iowa 2004).

256. See DOBBS & ROBERTS, *supra* note 240, at 530–31.

257. See *id.*

258. *Id.*

259. See IOWA CODE § 657.11A (2021); N.C. GEN. STAT. ANN. §§ 106-701, 106-702 (2021) (limiting compensatory and punitive damages).

260. See DOBBS & ROBERTS, *supra* note 240, at 312–29.

261. See, e.g., *Patz v. Farmegg Prods., Inc.*, 196 N.W.2d 557, 563 (Iowa 1972) (affirming a denial of special damages).

262. See Laura J. Hines & N. William Hines, *Constitutional Constraints on Punitive Damages: Clarity, Consistency, and the Outlier Dilemma*, 66 *Hastings L.J.* 1257, 1259, 1275 (2015).

263. Tovar, *supra* note 215; Harrison M. Pittman, Annotation, *Validity, Construction, and Application of Right-to-Farm Acts*, 8 *A.L.R.* 6th 465 § 2 (2021).

264. See Jacqueline P. Hand, *Right-to-Farm Laws: Breaking New Ground in the Preservation of Farmland*, 45 *U. PITT. L. REV.* 289, 297–98 (1984).

significance accorded to them by courts vary a good deal from state to state, the basic idea behind all right-to-farm laws is quite similar—farmers engaging in normal farming activities in areas where agriculture is the primary land use should be able to conduct conventional farming practices without fearing suit by new residential neighbors objecting to some type of minor nuisance harm.<sup>265</sup> In essence, the first generation of right-to-farm laws codified the common law “coming to the nuisance” doctrine and applied it to neighbors coming into the rural neighborhood after some type of industrial agriculture had already begun operating.

Right-to-farm laws typically are either state-wide in scope or they allow local governments the power to grant complete or partial immunity from nuisance suits to qualified farm operations, so long as they are engaged in conventional farming practices and are not negligent in doing so.<sup>266</sup> Where the decision to publicly designate “farm friendly zones” is made by local governments, it is up to the farm operator to convince the local government that it is in the public interest to encourage productive use of rural land by farmers who engage prudently in conventional farming practices. If the local government agrees, basic farm activities will be legally protected within designated agricultural areas against nuisance suits by their rural neighbors who move in later.<sup>267</sup> Thus, whether right-to-farm laws operate locally or statewide, neighboring landowners aggrieved by the animal waste discharges, odors, noise, dust, or other airborne contaminants emanating from a nearby CAFO generally face major legal impediments in bringing a nuisance lawsuit. When the farm operation causing harm was clearly initiated before the neighbor acquires their land or improves it in a way that is impaired by the CAFO’s operation, the neighbor usually cannot maintain a nuisance suit unless the CAFO is in violation of some public regulation or is being operated in a negligent manner.<sup>268</sup>

Not surprisingly, CAFO operators have been quick to claim the benefits of state right-to-farm laws by seeking the special immunity from neighbors’ nuisance suits, and some have done so successfully.<sup>269</sup> It is fair to observe, however, that courts are not particularly friendly to laws that immunize any business enterprise against nuisance liability to their neighbors. Because most right-to-farm laws typically do not protect “negligent” farm practices and include specific timing rules regarding when their protective features take effect, including special provisions governing major changes in the agricultural business conducted on the farm, some courts have found ways to

---

265. See Ashwood et al., *supra* note 12, at 120–21.

266. Hand, *supra* note 264, at 309–19.

267. See, e.g., *Himsel v. Himsel*, 122 N.E.3d 935, 938–41, 950 (Ind. Ct. App. 2019) (farmer who switched from cash crops to raising more than 4,000 hogs in a large CAFO was protected by Indiana’s Right-to-Farm law that specifically allowed conversion from one type of agriculture to another type of agriculture).

268. See Steven D. Shrout, *Missouri’s Right to Farm Statute’s Durational Use Requirement and the Right to Farm Amendment*, 83 UMKCL. REV. 499, 517 (2014); Hand, *supra* note 264, at 314–19.

269. See Neil D. Hamilton, *Right-to-Farm Laws Reconsidered: Ten Reasons Why Legislative Efforts to Resolve Agricultural Nuisances May Be Ineffective*, 3 DRAKE J. AGRIC. L. 103, 108–09 (1998).

interpret the law so that it does not offer the protection claimed in particularly offensive nuisance cases.<sup>270</sup> Judicial reluctance to apply right-to-farm laws to CAFOs led to several states enacting second-generation right-to-farm laws that expanded legal protections against nuisance actions by neighbors against polluting CAFOs to CAFOs. For example, Indiana amended its right-to-farm law in 2005 to clarify that the law applied even when farm operators radically changed the nature of the agricultural business conducted on their land.<sup>271</sup> A later case applied the revised Indiana right-to-farm law to protect a farm owner from a neighbor's nuisance action even when the neighbor was in residence first and the farmer changed his agricultural production from growing corn to operating a large hog CAFO.<sup>272</sup>

#### A. IOWA'S AMENDMENTS TO ITS RIGHT-TO-FARM LAWS

The Iowa legislature enacted two different types of right-to-farm laws. The first law enacted in 1982 was a generic right-to-farm law intended to protect all types of normal farm activities from nuisance lawsuits unless the harm complained about was the result of negligence or a violation of public law.<sup>273</sup> The first time this law was before the Iowa Supreme Court in 1996, the court ruled the law inapplicable because the farm activity challenged as a nuisance was initiated a year before the farm qualified for the protection of the law.<sup>274</sup> Two years later, the law was declared unconstitutional by the Iowa Supreme Court in *Bormann v. Board of Supervisors*.<sup>275</sup> In its *Bormann* decision, the Iowa Supreme Court characterized the effect of the law on neighbors' property rights as the state taking a valuable easement from the neighbors without just compensation.<sup>276</sup>

A second-generation Iowa right-to-farm law was enacted in 1995 for the express purpose of immunizing CAFOs from nuisance liability to their neighbors. This new right-to-farm law took the form of an amendment to Iowa's longstanding nuisance statute, Iowa Code Chapter 657. It went well

270. See, e.g., *Weinhold v. Wolff*, 555 N.W.2d 454, 462–63 (Iowa 1996) (Right-to-farm defense denied because nuisance began before CAFO qualified for statutory protection); *Durham v. Britt*, 451 S.E.2d 1, 3–4 (N.C. Ct. App. 1994) (change from small turkey raising operation to large hog CAFO was too great a change and denied defendant protection of the law); *Mayes v. Tabor*, 334 S.E.2d 489, 491 (N.C. Ct. App. 1985) (“[A]n agricultural operation that was not a nuisance when it began cannot become a nuisance due to ‘changed conditions in or about the locality thereof after the same has been in operation for more than one year. . . .’”); *Alpentel Cmty. Club, Inc. v. Seattle Gymnastics Soc’y*, 111 P. 3d 257, 261–62 (Wash. 2005) (Right-to-farm law not applied because there was no evidence that defendant's forest preserve was there first.).

271. See An Act to amend the Indiana Code concerning property, 2005 Ind. Legis. Serv. P.L. 23-2005 (West); IND. CODE ANN. § 32-30-6-9(d) (West, Westlaw current with all legislation of the 2021 First Regular Session of the 122d General Assembly effective through July 1, 2021).

272. See *Dalzell v. Country View Fam. Farms, LLC*, 517 F. App'x 518, 518–20 (7th Cir. 2013) (mem.).

273. *Bormann v. Bd. of Supervisors*, 584 N.W.2d 309, 313–14 (Iowa 1998).

274. See *Weinhold v. Wolff*, 555 N.W.2d 454, 462–63 (Iowa 1996).

275. *Bormann*, 584 N.W.2d at 311, 321–22.

276. *Id.* at 311, 313.

beyond the negligence and illegality exceptions of the Iowa Code 352.11(1) and specifically subjected CAFOs to nuisance liability only if the pollution complained about resulted because the CAFO did not comply with applicable federal and state regulations or “failed to use existing prudent generally accepted management practices reasonable for the operation.”<sup>277</sup> This latter phrase was a direct way of giving legislative blessing to the storage lagoon/land spreading method of handling high volumes of animal wastes currently employed by virtually every hog CAFO in Iowa.

This second-generation right-to-farm law was struck down as unconstitutional by the Iowa Supreme Court in 2004.<sup>278</sup> In *Gacke v. Pork Xtra L.L.C.*, the Iowa Supreme Court adopted the same taking-of-an-easement reasoning propounded in *Bormann*,<sup>279</sup> but limited that result to the loss in land value. The court rejected the CAFOs argument that the new Right-to-Farm law was different than the earlier law struck down in *Bormann* because the new law did not explicitly exempt negligent or illegal operation of a CAFO as did the Iowa Code 352.11(1). The court ruled that 352.11(1) and 657.11 were functionally so similar they must be considered under the same constitutional analysis.<sup>280</sup>

The Iowa legislature responded to the *Gacke* case in 2017 by enacting an amendment to the 1995 law to limit the money damages a winning nuisance plaintiff could collect from a CAFO defendant.<sup>281</sup> This latest Iowa Right-to-Farm law has yet to be tested in court, but it contains ambiguous language that, if interpreted broadly, could severely restrict neighbors’ rights in nuisance suits against CAFOs. One possible interpretation would not only bar plaintiffs from fully recovering compensatory damages but also prevent them from being granted injunctive relief and to being awarded punitive damages.<sup>282</sup>

Among the fifty states, only the Iowa Supreme Court has unequivocally struck down right-to-farm laws protecting CAFOs as unconstitutional, and it has done it twice. In both of the *Bormann* and *Gacke* cases the Iowa Supreme Court ruled that the legal effect of the challenged right-to-farm law was to allow the state to acquire a permanent easement against the neighbors’ property that allowed a CAFO to pollute the property without any liability for the harm caused.<sup>283</sup> Thus, the law caused an unconstitutional taking of the neighbor’s property right because the state provided no payment of just compensation to the neighbor for loss of this valuable easement.<sup>284</sup>

277. *Gacke v. Pork Xtra, L.L.C.*, 684 N.W.2d 168, 173 (Iowa 2004).

278. *See id.* at 171.

279. *See id.* at 172–74.

280. *Id.* at 173.

281. *See* IOWA CODE § 657.11A (2021).

282. *See* Hines, *supra* note 19, at 55–59, 63–64; David Bennett, *Right to Farm Laws Being Tweaked Across Nation*, FARM PROGRESS (Aug. 7, 2013), <https://www.farmprogress.com/government/right-farm-laws-being-tweaked-across-nation> [<https://perma.cc/RH92-GHRC>].

283. *See* Hines, *supra* note 19, at 55.

284. *Id.*

The reasoning of the Iowa Supreme Court can best be explained by analogizing the Iowa right-to-farm law to a Right-to-Trespass law. Suppose such a law authorized a petroleum pipeline company to run its pipeline across a farmer's land without negotiating for and acquiring an easement to do so. Such a law certainly would be struck down in every state as an unconstitutional taking of a legal easement from the farmer by the state without paying just compensation.<sup>285</sup>

By contrast, under conventional takings jurisprudence, without the Iowa Supreme Court's characterization of the right-to-farm law as the *per se* taking an easement, such a regulatory law that caused only modest property loss to a neighboring owner would normally be upheld as a reasonable exercise of the state's police power.<sup>286</sup> As noted earlier, among the 50 states, only the Iowa courts apply this easement analysis to justify their holding that the result of this type of right-to-farm law on neighbors' private property is an unconstitutional taking. Other states have generally rejected the Iowa easement analysis and upheld right-to-farm laws against similar constitutional challenges, ruling instead that the loss to neighbors' land value was not an excessive diminution under *Penn Central*.<sup>287</sup>

The latest U.S. Supreme Court "takings" case, *Cedar Point Nursery v. Hassid*,<sup>288</sup> suggests a possible argument to support the Iowa Supreme Court's constitutional "easement analysis" in the *Bormann* and *Gacke* cases. Chief Justice Roberts, writing for a 6–3 majority, cited and applied most of the Court's modern takings jurisprudence in ruling that a longstanding California farm labor regulation was invalid as a "per se" taking.<sup>289</sup> The California law at issue allowed representatives of a farm workers' union to "take access to" (enter) an employer's agricultural land under a restrictive time schedule for the sole purpose of recruiting potential union members.<sup>290</sup>

Roberts made a special point of emphasizing that *per se* takings were not limited to direct physical invasions of private property.<sup>291</sup> Legislatively authorized regulations could also result in a *per se* taking if the practical effect on the landowner's basic property rights were the same as if a physical invasion had occurred. He cited *Kaiser Aetna v. United States*,<sup>292</sup> *Nollan v. California Coastal Commission*,<sup>293</sup> *Dolan v. City of Tigard*,<sup>294</sup> *Lucas v. South Carolina*

285. See *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1019, 1027 (1992).

286. See *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 105 (1978) (taking occurs only if the diminution in the property value is excessive); see also Jeffrey R. Gittins, Comment, *Bormann Revisited: Using the Penn Central Test to Determine the Constitutionality of Right-to-Farm Statutes*, 2006 B.Y.U. L. Rev. 1381, 1403–07.

287. See *Penn Cent. Transp. Co.*, 438 U.S. at 131.

288. See generally *Cedar Point Nursery v. Hassid*, 141 S. Ct. 2063 (2021) (takings clause case decided June 23, 2021).

289. *Id.* at 2078–80.

290. *Id.* at 2070–71.

291. *Id.* at 2072–73.

292. *Kaiser Aetna v. United States*, 444 U.S. 164 (1979).

293. *Nollan v. Cal. Coastal Comm'n*, 483 U.S. 825 (1987).

294. *Dolan v. City of Tigard*, 512 U.S. 374 (1994).

*Coastal Council*,<sup>295</sup> and *Horne v. Department of Agriculture*<sup>296</sup> in support of this point.<sup>297</sup> In all of these cases except *Horne*, the Court specifically observed that the effect of the challenged regulation was for the government to take an easement in the property of the regulated party without paying any compensation.<sup>298</sup>

Much the same analysis could apply to the loss in a basic property right caused by a state statute exempting CAFOs from liability for causing serious harm to a neighbor's land contrary to the private property protections otherwise afforded by the law of nuisance. The effect of such a statute immunizing CAFOs from nuisance liability to their neighbors would be to grant them an easement to pollute, very similar to the easements hypothesized in the cases cited by the Chief Justice. While the right to exclude others from one's land extolled in the cases cited is the most fundamental of property rights, the right to be free from unreasonable interference with the use and enjoyment of one's land is also a fundamental property right, universally recognized and protected for centuries by the law of nuisance. Maybe the "easement analysis" of the Iowa Supreme Court is not so unconventional after all.

There may be trouble ahead for the continued vitality of the uniquely Iowa easement analysis as applied to legislation insulating CAFOs from nuisance actions. A major nuisance suit brought by a number of neighbors against a very large Iowa CAFO is currently working its way through the Iowa courts, having already been to the Iowa Supreme Court once on an interlocutory appeal.<sup>299</sup> In this 2018 decision, two Iowa Justices wrote a concurring opinion in which they suggested the next time the case reached the Court, they were prepared to reconsider the foundations of the constitutional doctrines applied to strike down the legislative protection afforded to Iowa CAFOs.<sup>300</sup> They posited that a fresh look at the constitutional issues was necessary because conditions had changed<sup>301</sup> since the *Bormann* and *Gacke* cases were decided.

It is not at all clear what "conditions" the justices had in mind. Today Iowa has more and larger hog CAFOs than ever before and the universal manure management process is still lagoon storage and land spreading, a practice that continues to cause potentially noxious harms to neighbors. The one thing that has changed in the past two decades is the membership of the Iowa Supreme Court. Today, only one justice—Justice Brent Apple—served on the Court when the *Gacke* case was decided seventeen years ago. If the Iowa Supreme Court accepts this invitation to revisit its constitutional rulings in *Bormann* and *Gacke*, recent amendments to the North Carolina right-to-farm

---

295. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003 (1992).

296. *Horne v. Dep't of Agric.*, 135 S. Ct. 2419 (2015).

297. *Cedar Point Nursery v. Hassid*, 141 S. Ct. 2063, 2072–74 (2021).

298. *Id.*

299. *See Honomichl v. Valley View Swine, LLC*, 914 N.W.2d 223 (Iowa 2018).

300. *Id.* at 239–40 (Waterman, J., concurring).

301. *Id.*

law<sup>302</sup> may foreshadow the type of CAFO protections that the Iowa General Assembly will enact and the Iowa Supreme Court will endorse.

B. *NORTH CAROLINA AMENDMENTS TO ITS RIGHT-TO-FARM LAW*

Shortly after a large number of nuisance lawsuits were filed by CAFO neighbors against Murphy-Brown, LLC, the North Carolina Legislature began enacting a series of amendments to the state's right-to-farm law designed to protect hog CAFOs from neighbors' nuisance suits.<sup>303</sup> The first amendment in 2013 overturned an earlier judicial ruling narrowly construing the reference in the law to "changed conditions"<sup>304</sup> to make clear that even a dramatic change in the type of farm product produced did not constitute a changed condition justifying a neighbor's nuisance action.<sup>305</sup> The 2013 amendment also adopted a new "frivolous" lawsuit punishment, allowing the awarding of attorneys' fees to the winning side when a nuisance suit was found to be without merit.<sup>306</sup>

CAFO expansion in North Carolina is currently in limbo due to a series of huge nuisance verdicts in the lawsuits mentioned above, which were won by neighbors against big North Carolina CAFOs.<sup>307</sup> What made these nuisance verdicts noteworthy was not only the 500 African-American plaintiffs involved in the 26 lawsuits,<sup>308</sup> but also the size of the compensatory damages judgments and the very large amounts of punitive damages awarded.<sup>309</sup>

The tens of millions of dollars in compensatory and punitive damages awarded by the North Carolina federal district court against Murphy-Brown, LLC clearly got the attention of the CAFO industry and in turn the North Carolina legislature. Shortly after the federal District Court for the Eastern District of North Carolina started hearing these highly publicized nuisance suits, the North Carolina legislature began adopting additional amendments to its right-to-farm law.<sup>310</sup> These latest amendments were explained on the floor of the North Carolina legislature to be needed to reduce the financial uncertainty experienced by CAFO operators stemming from the Murphy-Brown LLC litigation.<sup>311</sup> This objective was achieved by further limiting CAFOs' liability in nuisance suits by their neighbors. The amendments to the right-to-farm law enacted in 2017 adversely affected neighbors' right to sue a

302. See *supra* Section V.B.2.

303. See Smart, *supra* note 51, at 2124-34.

304. See *Durham v. Britt*, 451 S.E.2d 1, 3-4 (N.C. Ct. App. 1994).

305. See Smart, *supra* note 51, at 2129-31.

306. See *id.* at 2131-32; N.C. GEN. STAT. § 106-701(f) (2021).

307. See Yeoman, *supra* note 5.

308. *Id.*

309. *Id.* ("The jury awarded the 10 plaintiffs \$50.75 million combined, though the award was reduced to \$3.25 million because of a state cap on punitive damages.")

310. Lisa Sorg, *Neutering Nuisance Laws in North Carolina*, NC POL'Y WATCH (Nov. 15, 2017), <https://ncpolicywatch.com/2017/11/15/neutering-nuisance-laws-north-carolina> [<https://perma.cc/PNJ2-3397>].

311. See Yeoman, *supra* note 5.

CAFO for nuisance by severely restricting the types of compensatory damages that could be collected by winning nuisance plaintiffs. Ordinarily recoverable nuisance damages, such as personal discomfort, inconvenience, loss of enjoyment, and mental distress, were no longer available to neighbors winning nuisance suits against CAFOs.<sup>312</sup> The amendments also added a new “successor in interest” proviso that limited recovery in a second nuisance suit against the same CAFO to the property’s fair market value, even when the second instance of nuisance harm was entirely different from the first.<sup>313</sup> Finally, the 2017 amendments virtually eliminated punitive damages as a remedy by restricting punitive damages awards to cases where, within the prior three years, the CAFO had been convicted of a crime or cited for a violation of state or federal environmental regulations.<sup>314</sup> The 2017 amendments were vetoed by the Governor, but the veto was overridden by the legislature and the new law took effect on May 11, 2017.<sup>315</sup>

In 2018, barely a month after the first huge verdicts against Murphy-Brown LLC were rendered by the U.S. District Court for the Eastern District of North Carolina, the North Carolina legislature started adopting additional amendments to its right-to-farm law. One state senator at the time publicly announced that the latest amendments to the right-to-farm law were necessary to “fix” what was happening in the lawsuits against Murphy-Brown LLC.<sup>316</sup> The new amendments limited nuisance actions against CAFOs to neighbors who live no farther away than a half-mile from the site of the feeding operation.<sup>317</sup> The 2018 amendments also adopted new timing rules for bringing nuisance suits against CAFOs. A CAFO cannot be sued for nuisance unless it is less than one-year old or undergoes a “fundamental change”<sup>318</sup> in its operation.<sup>319</sup> Further, the 2018 amendments established a special statute of limitations for filing a nuisance claim against a CAFO. Nuisance claims must be filed within one year of the time the CAFO began operation,<sup>320</sup> not from when the nuisance harm from the CAFO was first experienced, which would be the normal measuring time in tort law. Perhaps most importantly, the 2018 amendments struck from the right-to-farm law the proviso that the law did not protect “negligent or improper” agricultural practices from nuisance

312. See N.C. GEN. STAT. § 106-702 (2021) (determining damages strictly on loss in fair market value of the affected property).

313. *Id.* § 106-702(b).

314. *Id.* § 106-702(a1).

315. Erica Hellerstein, *Despite Governor Cooper’s Veto, HB 467—The Hog-Farm-Protection Bill—Is Now Law*, INDYWEEK (May 17, 2017, 7:00 AM), <https://indyweek.com/news/despite-governor-cooper-s-veto-hb-467-the-hog-farm-protection-bill-is-now-law> [<https://perma.cc/KX6G-6KAX>].

316. See Yeoman, *supra* note 5.

317. See N.C. GEN. STAT. § 106-701(a)(2) (2021).

318. *Id.* §§ 106-701(a)(3), (a1). Recall that North Carolina’s 2013 right-to-farm amendments had already eliminated almost every relevant change in a farming operation from being treated as a “fundamental change.” See *supra* notes 304-06 and accompanying text.

319. See N.C. GEN. STAT. § 106-701(a)(3), (a1) (2021).

320. *Id.*

actions.<sup>321</sup> Thus, under the latest amendments, no matter how dreadful the harms to neighbors resulting from negligent operation of a CAFO, they are no longer treated as legal nuisances in North Carolina. Finally, as noted in Section VI, the North Carolina legislature stole a page from Iowa law<sup>322</sup> and forbid any unit of local government from engaging in any type of health or environmental regulation of a CAFO or any nuisance abatement activity.<sup>323</sup>

The Governor again vetoed this legislation, but the legislature overrode the veto and the new amendments took effect in July 2018.<sup>324</sup> The 2017 and 2018 amendments to the North Carolina right-to-farm law are currently being challenged in state court as both unconstitutional takings of private property without just compensation and as a violation of the state's constitutional prohibition against "private or special" laws.<sup>325</sup>

### C. THE FOURTH CIRCUIT RULING IN *MCKIVER V. MURPHY-BROWN, LLC*

In late 2020, the U.S. Court of Appeals for the Fourth Circuit finally decided *McKiver v. Murphy-Brown, LLC*<sup>326</sup>—one of the most eagerly awaited CAFO nuisance decisions in the past decade. On November 19, 2020, the court issued a 69-page opinion generally upholding the decision of the U.S. District Court for the Eastern District of North Carolina in favor of multiple nuisance plaintiffs against a large hog CAFO, nearly all of whose hog operation was directed by Murphy-Brown, LLC.<sup>327</sup> In the federal diversity litigation under appeal, a district court jury awarded the nuisance plaintiffs \$75,000 compensatory damages and \$2.5 million punitive damages.<sup>328</sup> In this litigation, Murphy-Brown, LLC identified itself as "d/b/a Smithfield Hog Production Division."<sup>329</sup>

On appeal, the three-judge Fourth Circuit panel ruled two-to-one to uphold the district court decision by Senior U.S. District Court W. Earl Britt on five of the seven rulings<sup>330</sup> challenged by Murphy-Brown, LLC. Judge Stephanie D. Thacker wrote the majority opinion,<sup>331</sup> Judge J. Harvie

321. See 2018 N.C. Sess Laws 113 (deleting N.C. GEN. STAT. § 106-701(a2)).

322. See IOWA CODE § 331.304A (2021). This Code section was ruled constitutional by the Iowa Supreme Court in *Worth Cnty. Friends of Agric. v. Worth Cnty.*, 688 N.W.2d 257, 265 (Iowa 2004).

323. IOWA CODE § 331.304A.

324. Ashley Pollard, Note, *This Little Piggy Caused a Nuisance: Analyzing North Carolina's 2018 Amendment to Its Right-to-Farm Act*, 14 LIBERTY U. L. REV. 569, 582-83 (2020).

325. See Complaint at 16-22, Rural Empowerment Ass'n for Cmty. Help v. North Carolina, No. 19-CVS-008198, 2019 WL 3456702 (N.C. Super. June 19, 2019).

326. *McKiver v. Murphy-Brown, LLC*, 980 F.3d 937, 977 (4th Cir. 2020).

327. *Id.* at 946.

328. *Id.*

329. *Id.* at 937.

330. *Id.* at 976-77.

331. *Id.* at 946, 965-66 (emphasizing the defendants knew they were causing severe harms to the plaintiffs, but continued business as usual, justifying the punitive damages).

Wilkinson, III wrote a concurring opinion,<sup>332</sup> and Judge G. Steven Agee concurred in part and dissented in part.<sup>333</sup>

The five lower court rulings Murphy-Brown, LLC challenged, but lost, mostly involved questions about whether the requirements for federal court jurisdiction based on diversity of citizenship were met (they were),<sup>334</sup> the enforceability of recently enacted state statutes of limitations on nuisance actions against CAFOs (they did not apply),<sup>335</sup> and the applicability of several recent legislative restrictions on nuisance actions against CAFOs adopted by the North Carolina legislature after these lawsuits against Murphy Brown, LLC had commenced.<sup>336</sup>

A key holding of the majority decision was that these new restrictions on nuisance suits against CAFOs were not intended to operate retroactively, and therefore they did not apply to the case.<sup>337</sup> Thus, these highly restrictive amendments to North Carolina's right-to-farm laws should not affect other pending litigation against Murphy-Brown, LLC initiated before the new restrictions were enacted. They will, however, clearly affect the viability of future nuisance litigation against CAFOs in North Carolina, unless lawsuits challenging their constitutionality succeed.<sup>338</sup>

The appellate court found in favor of Murphy-Brown, LLC on two main points: a claim of abuse of discretion by Judge Britt in refusing to allow testimony by an expert witness for the defense;<sup>339</sup> and the district court's failure to separate the punitive damages phase of the trial from the compensatory damages phase.<sup>340</sup> The appellate court appeared to agree with the appellant's argument that the disallowance of testimony by the defense expert could possibly have been an error, but ruled it was an insufficient basis

332. *Id.* at 977, 979–82 (Wilkinson, J., concurring) (eloquently describing the serious health and environmental dangers the operation of ever larger CAFOs pose to the confined animals, to workers in the facilities, to neighbor, and to the public at large).

333. *Id.* at 984 (Agee, J., concurring in part and dissenting in part) (finding he would have denied plaintiffs any punitive damages).

334. *Id.* at 950–52 (majority opinion). To qualify for federal diversity jurisdiction, the plaintiffs deliberately did not sue Kinlaw Farms, LLC, the North Carolina CAFO from which the nuisance damages to plaintiffs emanated. *Id.* The Court ruled Kinlaw Farms, LLC was not a necessary party in the case because the hogs involved were all owned by Murphy-Brown LLC, who also completely controlled the operation of the hog CAFO, including its manure management practices, under the terms of its contract with Kinlaw Farms, LLC. *Id.*

335. *Id.* at 952–54.

336. *Id.* at 954–58.

337. *Id.* at 958.

338. In new litigation against Murphy-Brown, LLC, initiated in 2020, the plaintiffs are claiming trespass and negligence harms against the offending CAFOs to avoid the force of the new legislation restricting nuisance suits against CAFOs. In an initial procedural ruling, the federal district court agreed to allow this litigation to go forward. *See* Gary Baise, *Smithfield Loses Another Right-to-Farm Legal Battle Over CAFOs*, FARM FUTURES (Apr. 6, 2021), <https://www.farmprogress.com/commentary/smithfield-loses-another-right-farm-legal-battle-over-cafos> [https://perma.cc/BUQ2-EC5V].

339. *McKiver*, 980 F.3d at 961–63.

340. *Id.* at 965–77.

to order a new trial.<sup>341</sup> The district court's failure to bifurcate the jury's consideration of compensatory damages from its consideration of punitive damages was held to be serious legal error under North Carolina law—this error compelled the appellate court to remand the case to the district court for a separate hearing on the punitive damages claim.<sup>342</sup> There was no new hearing on punitive damages in the trial court, however, because a week after the Fourth Circuit opinion was released, the parties entered into a settlement agreement ending the litigation.<sup>343</sup> This settlement agreement was confidential, and its terms were not made public.

#### D. OTHER STATES' AMENDMENTS TO THEIR RIGHT-TO-FARM LAWS

Politically powerful economic interests in a few other states appear committed to further opening their state's doors to expanding types of industrialized agriculture, including hog CAFOs that pose nuisance harms to neighboring landowners.<sup>344</sup> Besides Iowa and North Carolina, since 1990, several other states have enacted special laws clearly intended to limit potential nuisance liability for pollution from CAFOs and other intensive agricultural activities causing serious harms to neighbors. For example, both North Dakota in 2012<sup>345</sup> and Missouri in 2014 amended their state constitutions to add new right-to-farm provisions.<sup>346</sup> Earlier, Missouri amended its right-to-farm statute in 2011 to make it more difficult for neighbors to successfully sue CAFOs and added a frivolous lawsuit clause.<sup>347</sup> In 2005, Indiana amended its right-to-farm law to define very narrowly what constituted a "significant change in . . . operation" that rendered a CAFO vulnerable to a nuisance lawsuit by an aggrieved neighbor.<sup>348</sup> Amazingly, this amendment was applied by a federal circuit court in a case that held the change from growing corn to operating a large hog CAFO was not a "significant change."<sup>349</sup> The Indiana amendment also added a "frivolous

341. *Id.* at 962.

342. *Id.* at 965, 976–77.

343. See Gary D. Robertson, *Court Upholds Hog Verdict; Smithfield Announces Settlement*, AP NEWS (Nov. 19, 2020), <https://apnews.com/article/north-carolina-courts-4b2f1db4c21e03653851e81b81996410> [https://perma.cc/L2EC-ZEMF].

344. See Ross H. Pifer, *Right to Farm Statutes and the Changing State of Modern Agriculture*, 46 CREIGHTON L. REV. 707, 709–11, 719 (2013).

345. See Blake Nicholson, *Voters Make North Dakota First State in Nation to Protect Right to Farm in Constitution*, STAR TRIBUNE (Nov. 8, 2012, 1:07 PM), <https://www.startribune.com/north-dakota-voters-add-farmer-protection-to-constitution/177921891> [https://perma.cc/4DKZ-FHDU].

346. The Missouri Amendment was upheld against a constitutional challenge in *Shoemyer v. Missouri Secretary of State*, 464 S.W.3d 171 (Mo. 2015).

347. See S. 187, 96th Gen. Assemb., 1st Reg. Sess. (Mo. 2011); MO. ANN. STAT. § 537.296 (West, Westlaw current through the end of the 2021 First Regular and First Extraordinary Sessions of the 101st General Assembly).

348. See An Act to amend the Indiana Code concerning property, 2005 Ind. Legis. Serv. P.L. 23-2005 (West); IND. CODE ANN. § 32-30-6-9(d)(1) (West, Westlaw current with all legislation of the 2021 First Regular Session of the 122d General Assembly effective through July 1, 2021).

349. See *Dalzell v. Country View Fam. Farms, LLC*, 517 F. App'x 518, 518–20 (7th Cir. 2013) (mem.).

lawsuit” provision to its right-to-farm law.<sup>350</sup> Arkansas beefed up its right-to-farm law in 2005 to increase the protection of CAFOs.<sup>351</sup>

In the states adopting such laws, the courts have upheld them against various constitutional challenges, rejecting the taking analysis of Iowa’s *Bormann* case.<sup>352</sup>

## IX. CONCLUSION

It is difficult to be optimistic about neighbors receiving greater legal protection from polluting CAFOs soon. Federal law is unlikely to change, and states with large numbers of CAFOs face a clear dilemma in choosing between their desire to reap the economic benefits of CAFO expansion and not being too permissive in their regulation of problematic CAFOs to the detriment of the public and CAFO neighbors. This ambivalence leaves private nuisance law as the primary source of legal protection against polluting CAFOs, and nuisance law itself is under attack in several states with large concentrations of CAFOs.

At the core of this problem is the general legal acceptance in the United States of allowing the external costs of CAFO’s archaic method for handling animal wastes to be imposed on the public and on neighbors. The standard storage lagoon/land spreading method routinely used by CAFOs to dispose of animal wastes may be simple and inexpensive to operate, but it would never be allowed anywhere else in the nation for the disposal of human sewage or for the disposal of industrial wastewater. In the twenty-first century, this primitive waste disposal system used by CAFOs would universally appear neither “prudent” nor “reasonable,” to recite the restrictive language in typical right-to-farm laws. But state and federal administrative agencies and courts consistently reach a contrary conclusion in interpreting these laws.

So long as American consumers want inexpensive eggs, chicken wings, turkey, beef, bacon, ham, pork tenderloin, and sausage, however, CAFOs and their supporters have a persuasive case for keeping their waste disposal costs as low as possible. But these costs are low only because CAFOs can pass along major costs associated with their animal waste disposal systems to the public in the form of degraded waterways and lower quality airsheds. In too many cases, these external costs are also borne heavily by CAFOs’ neighbors who must endure sickening odors causing serious private losses to their property values, health, and personal well-being.

A few states are considering at least requiring CAFO operators to install roofs over their lagoons to close them in, but such a fix only alleviates some of the odor problem, it does not eliminate it. More importantly, it does not

---

350. See IND. CODE ANN. § 32-30-6-9.5 (West, Westlaw current with all legislation of the 2021 First Regular Session of the 122nd General Assembly effective through July 1, 2021).

351. See H.B. 2918, 85th Gen. Assemb., Reg. Sess. (Ark. 2005); ARK. CODE ANN. § 2-4-107 (2021).

352. See *Moon v. N. Idaho Farmers Ass’n*, 96 P.3d 637, 645 (Idaho 2004); *Labrayere v. Bohr Farms, LLC*, 458 S.W.3d 319, 327–31 (Mo. 2015); *Himsel v. Himsel*, 122 N.E.3d 935, 946–48 (Ind. Ct. App. 2019).

affect the potential harms to neighbors associated with leaks and overflows from waste storage basins and problems related to inefficient open land spreading of the animal wastes as natural fertilizer.

The obvious solution to this perplexing public health and environmental problem is to substantially upgrade the waste disposal practices of all CAFOs, not just new ones. Although this problem often presents itself as a legal issue, the solution must almost certainly be found in advances in agricultural engineering technology. In a perfect world, what is most needed is an affordable technology that converts animal wastes into a product like biogas that would be of sufficient value to justify the greater cost of more effective waste disposal systems for treating animal wastes. Developments in the clean energy field for capturing the methane and carbon dioxide generated by anaerobic digestion of animal wastes and using it for commercial purposes may hold promise as the means to pay for the cost of advanced waste treatment technology. It is too early to tell. If that opportunity does not pan out, what is most needed is a cost-effective technological breakthrough that is economically feasible, while at least benign toward the natural environment and unthreatening to CAFO neighbors. But anaerobic digesters, which many experts believe offer the desired fix, have not yet proved to be the technological “magic bullet,” largely because of the high expense associated with installing and operating them.

North Carolina has done by far the most work in trying to come up with a workable solution through its “technology forcing” statutory requirement that new CAFOs must employ “environmentally superior” animal waste management systems. The five criteria adopted by the state’s Swine and Poultry Waste Management Center provide a blueprint for any state wishing to get serious about confronting their hog CAFO waste management issues. But since starting down this path in the mid-2000s North Carolina has only approved two hog CAFOs large enough to justify the expense of using anaerobic digesters necessary to meet the environmentally superior requirement. Thus North Carolina’s tougher regulatory strategy can hardly be deemed a success and there is seemingly nothing in the works to address the problems CAFOs’ wastes create anywhere else in the United States.

The failure of North Carolina’s experiment with requiring “environmentally superior” waste disposal systems for new CAFOs suggests it would appear that an economically feasible, technologically workable fix for CAFOs waste disposal problem is not just around the corner. But it surely is not impossible. If our nation’s scientists can send a man to the moon, decode the human genome, and plumb the deepest corners of our oceans, why can’t they be mobilized to come up with a better way for handling the mountains of animal wastes our CAFOs regularly produce? It is time for public health specialists, scientists, engineers, ecologists, environmentalists, economists, and even lawyers to start asking hard questions about our society’s priorities when it comes to the harmful consequences of industrialized farming, particularly those caused by the growing numbers of large hog CAFOs. Until states like Iowa, with an exploding number of hog CAFOs, all relying on the conventional lagoon and land spreading method for disposing of the huge

quantities of animal wastes they produce, start taking more seriously the public health dangers, environmental threats, and other social harms the proliferations of hog CAFOs can produce, the threat to neighbors will only increase.

Meanwhile, the beat goes on. Before the Covid-19 pandemic hit Iowa, rumors were circulating that Cargill planned to build one or more large hog CAFOs somewhere outside of Cedar Rapids, perhaps near where ex-Senator Hogg's rural home is located. On September 22, 2021, the Sierra Club filed an action against the Iowa DNR seeking to require the agency to reconsider its granting a CAFO permit to a new 11,600 head of cattle feeding operation in Northeast Iowa operated by Supreme Beef.<sup>353</sup> The site of the cattle CAFO in Clayton County is near the headwaters of Bloody Run Creek, a stream designated by the DNR as "Outstanding Iowa Waters." Bloody Run Creek is a clear spring-fed, cold-water trout stream that sustains a sizeable population of native brown trout. Environmental experts are concerned that cattle wastes escaping from the Supreme Beef CAFO will eventually pollute Bloody Run Creek, ruining its pristine water quality and its unique status as an Iowa trout stream that supports an indigenous population of native brown trout.

In early 2022, an organization of fly fisherman petitioned the Iowa court to join the Sierra Club suit against the DNR for its approval of the large cattle feeding operation in the Bloody Run Creek watershed operated by Supreme Beef. Even if this suit is successful in stopping or limiting the size of the Supreme Beef operation, hog CAFOs will continue to proliferate across the Iowa countryside, posing new nuisance threats to their neighbors.

---

353. In confinement, cattle produce much greater amounts of urine and manure than do confined hogs. According to the Sierra Club suit, the land on which the Supreme Beef CAFO is located lies above a substrata of karst limestone, which is porous and characterized by regular fracturing. This type of underground structural weakness allows surface fluids to easily percolate into groundwater aquifers. Environmental experts are concerned that the high volume of cattle wastes from the Supreme Beef CAFO will eventually pollute Bloody Run Creek. At the time of the lawsuit, the cattle feeding operation had already received its CAFO permit from the Iowa DNR and was preparing to greatly increase the size of its operation. What could possibly go wrong?