

## The Story of Hog Manure

- 24.9 million pigs live in Iowa at any one time.<sup>1</sup> 3 million people live in Iowa. Which means there are 8.3 times as many hogs as people living in Iowa.
- Most hogs are raised in concentrated animal feeding operations (CAFOs), large industrial-scale buildings.
- In the 6 months between its birth and its slaughter, a pig grows from 3 pounds to 250 pounds.<sup>2</sup>
- 1 pig excretes 3 times as much nitrogen as a human, 5 times as much phosphorus as a human, and 3.5 times as much solid waste as a human.<sup>3</sup> In other words, Iowa hogs create the same amount of solid waste as 83.7 million people as much phosphorus as 124.5 million people.<sup>4</sup>
- A small CAFO will generate more waste than all of the people living in one of Iowa's small county seat towns.
- It is a bigger problem than just pigs. Iowa raises 80 million laying chickens, 4.7 million turkeys, 1.8 million beef cattle, and 250,000 dairy cattle.<sup>5</sup> The dairy cattle excrete the same amount of waste as 8.6 million people, beef cattle excrete the same amount as 25 million people, laying chickens excrete the equivalent of 15 million people, and turkeys produce the equivalent waste of 900,000 people.<sup>6</sup> Combined with the hog waste, that is equivalent to 134 million people – just excreted by the animals living in Iowa. Iowa also raises large numbers of broiler chickens, sheep, goats, and horses.
- Iowa is first in the nation in fecal waste generated per human equivalent, towering above any other state in the union – the equivalent of 2979 people per square mile.<sup>7</sup>



Photo by NRCS, Jeff Vanuga

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<sup>1</sup> "Iowa Ag News – Hogs & Pigs", United States Department of Agriculture, National Agricultural Statistics Service, September 27, 2019

<sup>2</sup> Randy Evans, "The population problem Iowa should discuss: Livestock and its effect on water quality", *Capitol Dispatch*, May 11, 2021

<sup>3</sup> Randy Evans, "The population problem Iowa should discuss: Livestock and its effect on water quality", *Capitol Dispatch*, May 11, 2021

<sup>4</sup> Randy Evans, "The population problem Iowa should discuss: Livestock and its effect on water quality", *Capitol Dispatch*, May 11, 2021

<sup>5</sup> Chris Jones, "Iowa's real population", March 14, 2019, see [www.iihr.uiowa.edu/cjones/iowas-real-population/?doing\\_wp\\_cron=1573935336.5887351036071777343750](http://www.iihr.uiowa.edu/cjones/iowas-real-population/?doing_wp_cron=1573935336.5887351036071777343750)

<sup>6</sup> Randy Evans, "The population problem Iowa should discuss: Livestock and its effect on water quality", *Capitol Dispatch*, May 11, 2021

<sup>7</sup> Chris Jones, "50 Shades of Brown", June 6, 2019, see [www.iihr.uiowa.edu/cjones/50-shades-of-brown/?doing\\_wp\\_cron=1561832490.8169128894805908203125](http://www.iihr.uiowa.edu/cjones/50-shades-of-brown/?doing_wp_cron=1561832490.8169128894805908203125)

Also see

- In urban areas, human excrement is treated in a sewage treatment facility where harmful pathogens are killed and toxic substances are removed.
- In CAFO operations, hog manure is captured and stored in pits under the CAFO building, in lagoons or in stand-alone manure tanks for up to a year, allowing anaerobic decomposition. None of the manure is treated to remove toxic substances or pathogens (such as E-coli, Salmonella, and methicillin-resistant Staphylococcus aureus (MRSA)). The pathogens can cause illnesses in humans.<sup>8</sup>
- CAFO odors can be smelled three miles away. At times, they can be detected as far away as five or six miles from the CAFO.<sup>9</sup>



- The untreated manure is applied to farm fields, where it can run into tile lines and can run off the fields during rain storms and snow melts. Eventually, the untreated manure enters Iowa's rivers, streams and lakes, leading to reduced water quality, algae blooms and pathogens in the water.
- In 2012, the Iowa Department of Natural Resources reported that 2,347,716 acres were treated with manure.<sup>10</sup>
- Between 2012 through 2018, an average of 19 discharges of manure entered Iowa's rivers, streams, and lakes every year.<sup>11</sup>
- **What's more, this is only going to get worse!** The industry is in the process of expanding the number of hogs that will be raised in Iowa to 30 million pigs. That means that there will be 10 pigs for every man, woman, and child living in Iowa. Those pigs will excrete the same amount of manure and urine as 150 million people.

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Donnelle Eller, "50 Shades of Brown: Iowa ranks No. 1 in, ahem, No. 2, UI researcher calculates", Des Moines Register, June 10, 2019

<sup>8</sup> Ellen K. Silbergeld, Chickenizing Farms & Food – How Industrial Meat Production Endangers Workers, Animals, and Consumers, Johns Hopkins University Press, Baltimore, 2016

<sup>9</sup> Carrie Hribar, "Understanding Concentrated Animal Feeding Operations and Their Impact on Communities", National Association of Local Boards of Health, 2010, Page 7

<sup>10</sup> Iowa Department of Natural Resources, "What is the status of the Concentrated Animal Feeding Operation (CAFO) Work Plan Agreement between EPA and DNR?" June, 2018

<sup>11</sup> Iowa Department of Natural Resources, "What is the status of the Concentrated Animal Feeding Operation (CAFO) Work Plan Agreement between EPA and DNR?" June, 2018

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- Even before the expected expansion, Iowa raises one of every three pigs in the United States.<sup>12</sup>

**Policy Discussion – it is time for a moratorium on constructing new animal confinements and expanding existing confinements**

It has become more than obvious that it is time for a moratorium on the construction of new animal confinements and on the expansion of existing confinements in Iowa. The Iowa Chapter supports treating CAFO animal waste in a sewage treatment plant just as human waste is treated in sewage treatment facilities. Manure biodigesters are not the answer because they only encourage even larger confinements, which create even more manure.

In some counties in Iowa, more manure is being excreted than there is farmland to safely spread it for fertilizer. The manure is being over-applied, which then runs off the fields and into rivers, streams, and lakes.

Farmers in Sioux and Lyon Counties are applying manure and commercial fertilizer at more than twice the recommended rates. Sioux and Lyon Counties have the largest number of medium and large animal feeding operations in Iowa (CAFOs). A recent study led by Chris Jones from the University of Iowa found that the nitrates from the farm fields were washing off the land and into the Floyd River and Rock River, resulting in nitrate levels greater than the drinking water standard. See the article “More feedlots mean more nitrates in streams, UI research finds”, by Erin Jordan, *Cedar Rapids Gazette*, January 21, 2019.

Washington County is also reaching a point where there is insufficient land to support any growth in the number of animals being raised. Already between 80 and 90 percent of that county’s farmland is being fertilized by manure. Washington County is among the top ten counties in Iowa in density of CAFOs. See “Large-scale pork production may push farther into Eastern Iowa”, by Erin Jordan, *Cedar Rapids Gazette*, May 7, 2018.

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<sup>12</sup> Chris Jones, “50 Shades of Brown”, June 6, 2019, see [www.ihr.uiowa.edu/cjones/50-shades-of-brown/?doing\\_wp\\_cron=1561832490.8169128894805908203125](http://www.ihr.uiowa.edu/cjones/50-shades-of-brown/?doing_wp_cron=1561832490.8169128894805908203125)