The Story of Hog Manure

- 24.9 million pigs live in Iowa at any one time.¹
- 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.
- 1 pig excretes 5 times the manure and urine as 1 human.
- Iowa hogs create the same amount of waste as 124.5 million people.
- A small CAFO will generate more waste than all of the people living in one of Iowa’s small county seat towns.
- 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.²
- 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.³
- The untreated manure is then 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.

¹“Iowa Ag News – Hogs & Pigs”, United States Department of Agriculture, National Agricultural Statistics Service, September 27, 2019
In 2012, the Iowa Department of Natural Resources reported that 2,347,716 acres were treated with manure.\textsuperscript{4}

Between 2012 through 2018, an average of 19 discharges of manure entered Iowa's rivers, streams, and lakes every year.\textsuperscript{5}

\textbf{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.

Even before the expected expansion, Iowa raises one of every three pigs in the United States.\textsuperscript{6}

It is a bigger problem than just pigs. Iowa raises large numbers of laying chickens, broiler chickens, turkeys, cattle, sheep, goats, and horses – 80 million laying chickens, 4.7 million turkeys, 1.8 million beef cattle, and 250,000 dairy cattle.\textsuperscript{7} All of them generate copious amounts of manure.

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.\textsuperscript{8}

The Iowa Chapter supports treating CAFO animal waste in a sewage treatment plant just as human waste is treated in sewage treatment facilities.

\textbf{It is time for a moratorium on the construction of new animal confinements and on the expansion of existing confinements in Iowa.}

\textsuperscript{4} 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
\textsuperscript{5} 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
\textsuperscript{6} Chris Jones, “50 Shades of Brown”, June 6, 2019, see \url{www.iihr.uiowa.edu/cjones/50-shades-of-brown/?doing_wp_cron=1561832490.8169128894805908203125}
\textsuperscript{7} Chris Jones, “Iowa’s real population”, March 14, 2019, see \url{www.iihr.uiowa.edu/cjones/iowas-real-population/?doing_wp_cron=1573935336.5887351036071777343750}
\textsuperscript{8} Chris Jones, “50 Shades of Brown”, June 6, 2019, see \url{www.iihr.uiowa.edu/cjones/50-shades-of-brown/?doing_wp_cron=1561832490.8169128894805908203125}
Also see Donnelle Eller, “50 Shades of Brown: Iowa ranks No. 1 in, ahem, No. 2, UI researcher calculates”, Des Moines Register, June 10, 2019
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, Ul 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.