

Profiting Off Pollution: The Fertilizer Monopolies Cashing in on Iowa's Nitrate Crisis

Nitrates, found in livestock waste and nitrogen fertilizers used primarily on corn and soy fields, are driving Iowa's ongoing water and cancer crises.¹ Elevated nitrate levels in drinking water are linked to several cancers, birth defects, and the life-threatening condition called "blue-baby syndrome."² Research finds that average nitrate concentrations are on the rise in Iowa's drinking water in recent years, with disproportionate impacts on vulnerable populations.³ Nitrogen fertilizers are a major culprit in this—it is estimated that half of all applied synthetic nitrogen fertilizer runs off, contaminating both surface and groundwater.⁴

Just a handful of companies dominate the consolidated nitrogen fertilizer industry. New Food & Water Watch analysis reveals how these companies are profiting off worsening pollution, on the backs of Iowans.

In Iowa, fertilizer distribution remains high as voluntary efforts fail:

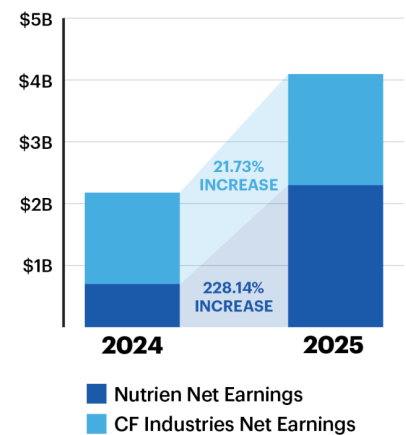
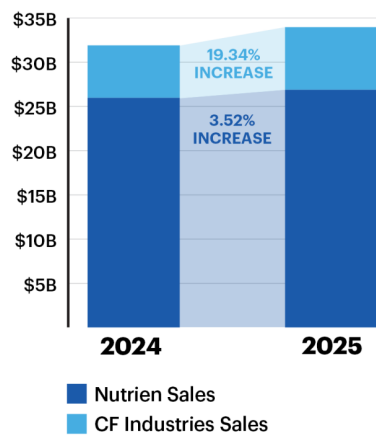
- Iowa's Nutrient Reduction Strategy was initially released in 2013 with the goal of reducing nutrient loading in waterways,⁵ but its reliance on voluntary pollution-reduction strategies has not curbed fertilizer distribution in the decade following. Between the 2014 and 2024 crop years, there was a 17% increase in total fertilizer tonnage distributed across Iowa. Between the 2014 and 2023 calendar years, there was a 25% increase in fertilizer tonnage. More anhydrous ammonia is being distributed during the calendar year, with distribution jumping 21% since 2014.⁶
- Notably, very little corn we grow directly feeds people, with most flowing into the factory farm system or to ethanol. In the 2025 crop year, 88.8% of domestic corn use went to these two uses, while 7.8% went into processed food additives. Just 1.8% went into cereal products.⁷ Similarly, most US soybeans are used to produce animal feed.⁸
- Iowa's water crisis cannot be addressed without seriously tackling the industrial farm system that perpetuates this overuse of fertilizers and overproduction of feed crops for factory farms. According to a recent Polk County Water Report, up to 97% of nitrogen in the Raccoon and Des Moines rivers come from crop and livestock farming. This includes farm fertilizers (40%), nitrogen fixation from crops (primarily soybeans) (22%), atmospheric deposition (mainly from manure transport) (20%), and manure application on fields (15.5%).⁹

The nitrogen fertilizer industry is profiting hand over fist:

- In 2023, the top four nitrogen fertilizer companies held a staggering 71% of the domestic nitrogen industry's capacity and owned a majority of US production plants. Following the sale of Iowa's OCI NV fertilizer plant to Koch Ag & Energy that year, the capacity of the top four companies increased to 76%—indicating a highly consolidated industry.¹⁰

- This comes amid a US Department of Justice investigation into potential price collusion between top fertilizer manufacturers and a US Federal Trade Commission antitrust investigation into the industry.¹¹

FIG. 1: Top Nitrogen Fertilizer Producers See Profit Margins Soar
2024 TO 2025, IN BILLIONS OF U.S. DOLLARS



- The top two corporations, CF Industries and Nutrien, hold 39% and 16% of the production capacity, respectively. Between 2024 and 2025, the companies increased net selling prices on nitrogen fertilizers and ammonia, to fatten their profit margins.¹² In that year, their combined sales rose just 6.5%, while profits jumped 88% (see Fig. 1). Together, they brought in \$34 billion in revenue and \$4.1 billion in profit in 2025.¹³
- The increases are even more staggering when comparing Q1 of 2025 to Q1 of 2026. Total sales were up 19% while net earnings increased by 120%, amounting to \$8 billion in sales and \$815 million in profit in Q1 2026. When considering only their nitrogen sector sales, the companies sold less volume (-6%) but increased their gross margin by 30%. They made \$3 billion in sales and \$1.1 billion in gross margins in Q1 2026 from their nitrogen sectors alone.¹⁴
- The CEOs of CF Industries and Nutrien brought in more than \$23 million combined in 2025. The top five highest paid employees at each of the two firms raked in \$57 million combined.¹⁵
- Koch Ag & Energy and Dyno Nobel Inc. hold the third and fourth positions for fertilizer production capacity, but as privately held companies, they are not required to report earnings to the US Securities and Exchange Commission.

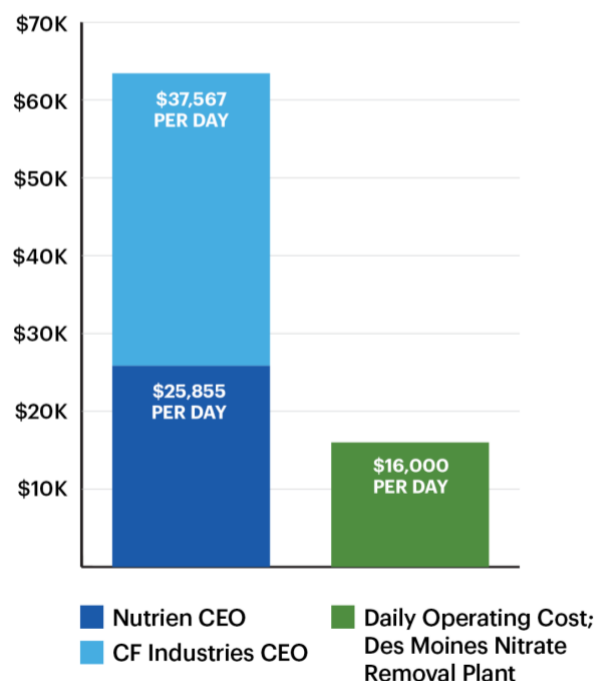
Meanwhile, fertilizer prices and fertilizer pollution are squeezing lowans:

- Between 1997 and 2022, the number of Iowa farms raising corn and soybeans fell by 29% and 37%, respectively. Meanwhile, the number of large farms (those harvesting 1,000+ acres) raising corn and soybeans increased 276% and 252%, respectively.¹⁶

- Global prices for grain fluctuate significantly between years but often don't cover production costs. The average US corn farmer failed to break even 19 out of the last 29 years (1997 to 2025), while the average soybean farmer failed to break even 13 times.¹⁷
- Fertilizer prices are consistently the highest input cost for corn farmers across the Heartland region, accounting for 37% of input costs in 2025. In 2025, the average cost per acre was \$169.71, compared to \$46.35 in 2000. Input prices have been steadily climbing over the past few decades. For soy farmers, fertilizer accounted for nearly a quarter of input costs in 2025, averaging \$57.26 per acre, compared to just \$8.31 in 2000.¹⁸
- Now, fertilizer prices are ticking ever higher, squeezing average farmers. In Iowa, prices for anhydrous ammonia (a gaseous form of nitrogen fertilizer) have jumped from \$721 to \$1,088 per ton since January 2025 (a 51% increase). Liquid nitrogen prices have increased even more, with farmers seeing a 64% jump from \$357 to \$583 per ton. Solid nitrogen fertilizer (urea) prices are up 60% since February 2025, going from \$488 to \$780 per ton.¹⁹
- While inflation has increased 87% since 2000, fertilizer costs have jumped 266% for corn and 518% for soy. The USDA anticipates corn and soy fertilizer prices to rise 16% more in 2026. This would bring costs per acre to a whopping \$184.33 for corn farmers and \$63.46 for soy farmers.²⁰
- Meanwhile, as nitrate loads overwhelm Iowa's waterways, everyday Iowans are on the hook for pollution costs. Des Moines is forced to run one of the world's largest nitrate removal plants, with a price tag of as much as \$16,000 per day (see Fig. 2).²¹ These costs trickle down to ratepayers—from 2007 to 2024, Des Moines Water Works' water rates increased 160%, from \$2.30 per 1,000 gallons to a whopping \$5.98 per 1,000 gallons.²²
- Private well owners have little recourse for filtering out these contaminants and are left to purchase expensive filtration systems or bottled water if they want to drink clean water. While 70 percent of households use water filters, only 10 percent have one that removes nitrate, and 50 percent supplement tap water with purchased water.²³

FIG. 2: While Fertilizer CEOs Profit, Des Moines Spends Thousands on Nitrate Removal

DAILY FERTILIZER CEO COMPENSATION VS. COST OF NITRATE REMOVAL, 2025



Endnotes

- 1 Mark B. Weldon and Keri C. Hornbuckle, "Concentrated Animal Feeding Operations, Row Crops, and Their Relationship to Nitrate in Eastern Iowa Rivers," *Environmental Science & Technology* 40, no. 10 (2006): 2, <https://doi.org/10.1021/es052426p>.
- 2 Mary H. Ward, "Drinking Water Nitrate and Human Health: An Updated Review," *International Journal of Environmental Research and Public Health* 15 (July 2018), abstract, 2, 5.
- 3 Emmanuel Padmore Mantley et al., "Disparities in Exposure to Elevated Nitrate Within Iowa Public Water Systems," *Environmental Science Water Research & Technology* 11, no. 4 (2025): abstract, 963, <https://doi.org/10.1039/d4ew00907j>.
- 4 Ward, 2.
- 5 *Iowa Nutrient Reduction Strategy: A Science and Technology-Based Framework to Assess and Reduce Nutrients to Iowa Waters and the Gulf of Mexico* (Iowa Department of Agriculture and Land Stewardship et al., 2017), 3.
- 6 Fertilizer Distribution Reports, Iowa Department of Agriculture and Land Stewardship, data from 2014 to 2024, <https://iowaagriculture.gov/commercial-feed-and-fertilizer-bureau/commercial-fertilizer>.
- 7 Feed Grains Database, US Department of Agriculture, <https://www.ers.usda.gov/data-products/feed-grains-database/feed-grains-yearbook-tables>.
- 8 U.S. Soybean Flow Infographic (Marketing Year 2024/2025), United Soybean Board, data updated March 10, 2026, <https://marketviewdb.unitedsoybean.org/insights/?mvi=USSoyFlow202425>.
- 9 *Currents of Change: An Analysis of the Raccoon and Des Moines Rivers in Central Iowa* (Polk County, 2025), 116.
- 10 "Domestic Producers of Anhydrous Ammonia in 2023," US Geological Survey (USGS), <https://www.usgs.gov/centers/national-minerals-information-center/nitrogen-statistics-and-information>.
- 11 Ryan Hanrahan, "FTC Confirms Probe of Rising Fertilizer Prices," *Farm Policy News*, May 29, 2026; Josh Sisco and Ilena Peng, "DOJ Probes U.S. Fertilizer Market for Possible Price Fixing," *Farm Progress*, March 4, 2026.
- 12 *CF Industries FY 2025*, 48; *Nutrien FY 2025 Annual Report*, 39.
- 13 "Domestic Producers of Anhydrous Ammonia," *CF Industries FY 2025 Annual Report* (CF Industries Form 10-K, 2026), 43, <https://www.sec.gov/edgar/browse/?CIK=1324404&owner=exclude>; *Nutrien FY 2025 Annual Report* (Nutrien, 2026), 1, <https://www.nutrien.com/investors/reports-and-resources>.
- 14 *CF Industries Q1 Quarterly Report* (CF Industries 10-Q, 2026), 1, 30, 34, <https://www.sec.gov/edgar/browse/?CIK=1324404&owner=exclude>; Nutrien, "Nutrien Reports First Quarter 2026 Results," news release, May 6, 2026.
- 15 *CF Industries Proxy Statement* (CF Industries DEF 14A, 2026), 81, 95, <https://www.sec.gov/edgar/browse/?CIK=1324404&owner=exclude>; *Notice of Annual Meeting of Shareholders and Management Proxy Circular* (Nutrien, 2026), 40.
- 16 Quick Stats (database), U.S. Department of Agriculture, <https://quickstats.nass.usda.gov/>.
- 17 "Commodity Costs and Returns" (database), US Department of Agriculture, updated May 1, 2026, <https://www.ers.usda.gov/data-products/commodity-costs-and-returns>.
- 18 "Commodity Costs and Returns."
- 19 Iowa Production Cost Report (Bi-Weekly), United State Department of Agriculture, data for January 1, 2025 to June 12, 2026, <https://mymarketnews.ams.usda.gov/viewReport/2863>.
- 20 "Commodity Costs and Returns"; "Cost-of-Production Forecasts for Major U.S. Field Crops, 2026F-2027F," US Department of Agriculture, updated June 18, 2026, <https://www.ers.usda.gov/data-products/commodity-costs-and-returns>.
- 21 *CF Industries Proxy Statement* (CF Industries DEF 14A, 2026), 81,95, <https://www.sec.gov/edgar/browse/?CIK=1324404&owner=exclude>; *Notice of Annual Meeting of Shareholders and Management Proxy Circular* (Nutrien, 2026), 40; Jared Strong, "Will Des Moines Water Works Have to Use Nitrate Removal System This Year?" *Iowa Capital Dispatch*, March 19, 2024.
- 22 Jason Clayworth, "Des Moines' Water Bills Are Rising," *Axios Des Moines*, February 24, 2022; "Des Moines," Des Moines Water Works, accessed August 2024, https://www.dmww.com/customer_service/rates___service_areas/des_moines.php.
- 23 Gabriel E. Lade et al., *The Iowa Rural Drinking Water Survey: Water Quality Perceptions and Avoidance Behaviors Among Rural Iowa Households* (Center for Agricultural and Rural Development and Conservation Learning Group, Iowa State University, 2022), 3.