

Consensus Policy Statement on Industrial Scale Livestock Production

We support policies and practices that hold industrial-scale livestock operations accountable for off-site impacts to air, land and water and protecting the health and safety of workers, neighbors and consumers.

Brief Statement of Problem

Overview - Livestock production is big business in Indiana. Industrial-scale livestock facilities are being promoted as a form of rural economic development for Indiana. The industry is attracted to Indiana because we have plentiful grain, abundant water and minimal environmental regulations.¹ Some local elected officials anticipate jobs and tax revenues, but fail to consider the full range of costs and impacts. Livestock manure is generally stored in pits or lagoons until it can be spread on farmland. Storage and application of untreated manure can create serious impacts on the health and well being of neighbors² and threaten air, land and water quality in reservoirs, lakes, rivers, streams, and sensitive ecosystems like caves and wetlands.

Health and Environmental Impacts - Indiana has 2200 industrial livestock facilities that must comply with the rules for Confined Feeding Operations (CFOs are livestock operations that house more than 300 cattle, 600 hogs, or 30,000 poultry or those having a discharge). Approximately 660 CFOs meet the federal definition of Concentrated Animal Feeding Operations (CAFOs –housing more than 1000 cattle or the equivalent).³

Large concentrations of livestock result in millions of gallons of animal waste. Livestock operations can generate volumes of waste equivalent to a small city, yet this waste is spread untreated on farm fields. These wastes may carry metals, arsenic, and disease-causing organisms, like the *E. coli* O157:H7 strain that has been traced to grain-fed cattle. They also contain antibiotic resistant micro-organisms, since antibiotics are widely used to increase animal growth rates in industrial scale food production.^{4,5,6} The presence of methicillin resistant *Staphylococcus aureus* (MRSA) in livestock is a growing concern, especially in swine.⁷

¹ Possibilities Unbound: The Plan for 2025 Indiana Agriculture's Strategic Plan pg. 23
http://www.in.gov/isda/files/In_strategic_plan_final.pdf

² Does Animal Feeding Operation Pollution Hurt Public Health? A National Longitudinal Study of Health Externalities Identified by Geographic Shifts in Livestock Production. S. Sneeringer. 2008. American Journal of Agriculture Economics. http://www.wellesley.edu/Economics/Sneeringer/research/CAFOpollution_health.pdf

³ Testimony of Bruce Palin at Oct. 2, 2008 meeting of Indiana Environmental Quality Service Council.

⁴ Airborne Bacteria in CAFOs: Transfer of Resistance from Animals to Humans. 2005. J.R. Barrett, Environ Health Perspect. 113(2): A116–A117. <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1277892>

⁵ Prescription for Trouble: Using antibiotics to fatten livestock. 2008. Union of Concerned Scientists
http://www.ucsusa.org/food_and_agriculture/science_and_impacts/impacts_industrial_agriculture/prescription-for-trouble.html

⁶ Human-Use Antibiotics in Livestock Production, U.S. Food and Drug Administration
http://www.fda.gov/cvm/hresp106_157.htm

⁷ http://www.keepantibioticsworking.com/new/indepth_mrsa.cfm

Regulations - The Office of the Indiana State Chemist published a notice of intent to initiate a rule concerning the use of manure as a fertilizer material on Sept. 22, 2007, but it expired after 1 year since no proposed rule was submitted during the specified period.⁸ The Indiana Department of Environmental Management has a regulatory program for CFOs and CAFOs, but current regulations do not directly consider air emissions, health impacts, property values or quality of life issues such as noise, dust, odors, or traffic. Current IDEM regulations address water quality by requiring land application at fertilizer rates for nitrogen and stating that discharge must be minimized. While industry representatives often claim to be zero discharge, no water testing is currently required to monitor streams, lakes or underground water supplies for nutrients or pathogens that leave farm fields where manure has been spread. Furthermore, IDEM rules mostly govern the production area; manure spreading is covered primarily by a nutrient management plan that is not an enforceable part of the permit. Many communities are struggling with ways to impose local regulations to make industrial-scale livestock operations more compatible with existing land uses and planned growth. But local zoning ordinances typically govern the production area only, ignoring land application of manure.

State regulations are inadequate to prevent pathogens and nutrients from entering our waterways. Indiana currently lists 959 water bodies as being contaminated with *E. coli* bacteria.⁹ Many waterways also suffer from nutrient overload and algal blooms. Manure handling practices often amount to simple waste disposal. Manure certainly has nutrient content, but it is typically handled in a manner that allows nutrients and other constituents to escape into the air during storage and land application, creating unsafe conditions and potential health threats, especially for people with respiratory illness^{10,11}. Manure contains nutrients in proportions that do not match crop needs, so land application based on a crop's nitrogen need is likely to overload the soil with phosphorous. Crop fields used for manure spreading are often in karst terrain, flood plains and/or underlain with field drainage tiles (pipes) that act as a conduit carrying contaminants to streams.^{12,13} Manure spread on fields can also raise nitrate levels in groundwater, endangering people who drink from private wells.^{14,15}

Just as deregulation of banks and other financial institutions has led to our current economic crisis, in the absence of effective regulations and regulators, some businesses try to make money by ignoring the impact of their actions on their fellow citizens. Indiana has tried a system of limited regulation of manure management. Dividing responsibility between local,

⁸ Information from Legislative Services Agency and the Office of the Indiana State Chemist

⁹ EPA approved Indiana 2008 303(d) list <http://www.ai.org/idem/4680.htm>

¹⁰ Asthma Symptoms Among Adolescents Who Attend Public Schools That Are Located Near Confined Swine Feeding Operations 2006. Pediatrics <http://pediatrics.aappublications.org/cgi/content/full/118/1/e66>

¹¹ School Proximity to Concentrated Animal Feeding Operations and Prevalence of Asthma in Students. 2006 *Chest* 129:1486-1491. <http://www.chestjournal.org/cgi/content/abstract/129/6/1486>

¹² Leakage and Sinkhole Collapses Under Hog Waste Lagoons in Kentucky. 1998. N.Crawford, Center for Cave and Karst Studies, Department of Geography & Geology, Western Kentucky University.

¹³ Agricultural and Environmental Impacts of Drainage Jane Frankenberger and Eileen Kladvik, Purdue University. <https://engineering.purdue.edu/SafeWater/Drainage/drainintro.htm>

¹⁴ Evaluation of the Storage and Movement of Potential Contaminants in Soils at a Confined Feeding Operation. 2007. Indiana Geologic Survey. <http://igs.indiana.edu/survey/projects/daviessCFO/index.cfm>

¹⁵ Spontaneous abortions possibly related to ingestion of nitrate-contaminated well water 1991-1994. Morbidity and Mortality Weekly Report 1996 Vol. 45(26);569-572, Center for Disease Control.

state and federal jurisdiction has resulted in no agency accepting responsibility for the oversight needed to keep unscrupulous practices from harming our precious natural resources and our health and safety. The agencies responsible for this limited regulation are significantly understaffed and under-funded, further deterring enforcement of existing regulations.

Potential Legislative Solutions

The long term solution to problems associated with industrial livestock operations is to promote and support more sustainable alternatives.¹⁶ In the meantime, industrial livestock facilities must be held to a higher level of accountability for the pollution they generate. Industrial livestock operations should be required to meet the same water quality standards as municipal wastewater treatment plants, since human sewage and animal manure have similar characteristics.¹⁷ A coalition of concerned citizens, conservation and environmental organizations recommend the following legislative changes to address the human health and environmental issues raised by industrial livestock operations:

1. Institute a moratorium on new industrial livestock operations until regulations protecting air, water and public health are in place;
2. Enact a good-character requirement that
 - Enables IDEM to consider corporate affiliations and previous violations in Indiana and other states;
 - Strictly regulates out-of-state manure and manure brokers even if they do not operate a CFO or CAFO in Indiana;
 - Requires licensing and bonding for manure applicators;
 - Requires a financial assurance package for CFO or CAFO operations that will pay for cleanups and proper closure;
 - Shifts the burden so that a person causing a fish kill is responsible for removal of dead fish;
3. Minimize air emission and protect the public through provisions that
 - Require setbacks from schools, health facilities, water reservoirs, rural residences, churches, state parks, and municipal boundaries;
 - Require pit covers, methane digesters or other available technologies that reduce emissions and eliminate pathogens;
 - Require 24-hour notice to neighbors before manure is spread near them.
4. Protect water quality and public health with initiatives that
 - Require methane digesters or other technologies that eliminate pathogens;
 - Make the manure management plan public and enforceable;
 - Require water testing to demonstrate that water quality standards for nutrients and pathogens are being met;
 - Notify local officials about where manure is land applied;
 - Direct the State Chemist Office and the IDEM to implement the Indiana Ground Water Protection Act's drinking water standard for nitrate levels in groundwater and to adopt manure regulations that will protect this standard;

¹⁶ Farmer in Chief, New York Times Magazine, October 9, 2008, Michael Pollan
www.nytimes.com/2008/10/12/magazine/12policy-t.html?_r=2&ref=magazine&oref=slogin&oref=slogin

¹⁷ Protocol for developing pathogen TMDLs. 2001 EPA. http://www.epa.gov/owow/tmdl/pathogen_all.pdf

5. Ensure food safety through measures that
 - Ban the non-therapeutic use of antibiotics;
 - Eliminate the use of arsenic in poultry;
 - Enable public right-to know about how food is produced, including the use of hormones in meat and milk production;
6. Improve agency oversight with measures that provide permit fees to support more inspectors for CAFOs

We the undersigned, encourage the Indiana General Assembly to enact legislation that holds industrial-scale livestock operations responsible for off-site impacts to air, land and water and protecting the health and safety of workers, neighbors and consumers.* We also urge improved legislative oversight of agency performance to create greater accountability to the people of Indiana.

Respectfully submitted,

Rae Schnapp, Ph.D.
Wabash Riverkeeper
Hoosier Environmental Council

Bowden Quinn
Conservation Program Coordinator
Sierra Club Hoosier Chapter

Barbara Sha Cox
Nicholas Ellis
Indiana CAFO Watch

Richard Hill
Save the Valley

Joe Hiscox
Concerned Citizens of Benton County

Julie Alexander
Delaware County Citizens for Responsible Economic Development (C-RED)

Kim Ferraro, Executive Director
Legal Environmental Aid Foundation of Indiana

* For further information, we suggest the following reports:

Putting Meat on The Table: Industrial Farm Animal Production in America, 2008, Pew Commission on Industrial Farm Animal Production 2008. www.ncifap.org/index.html

CAFOs Uncovered: The Untold Costs of Confined Animal Feeding Operations, 2008, Union of Concerned Scientists www.ucsusa.org/food_and_agriculture/science_and_impacts/impacts_industrial_agriculture/cafos-uncovered.html