

# FLUNKING THE PLANET

Scoring America's Food  
Companies on Sustainable Meat







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# Summary

When you and I enter a grocery store or restaurant, we trust that our favorite brands are providing high quality food from responsible suppliers. Customers increasingly want more than a meal that just tastes good, but one that reflects their values as well – with concerns about the environment ranking top of mind for a growing number of shoppers.

Producing meat has a larger environmental impact than almost any other human activity. Feeding and raising meat animals consumes more land and freshwater than any other industry, and the industry's waste byproducts rank among the top sources of greenhouse gas emissions and water pollution around the world. Many of these impacts are concentrated in the United States, where factory farming has its stronghold, but are spreading rapidly to other parts of the world, such as Latin America.

**The meat industry can dramatically reduce many of these impacts through better farming practices for sourcing feed and raising livestock, such as cover cropping, fertilizer management, conservation of native vegetation, feed improvements, and centralized manure processing.** The major meat producers like Tyson and Cargill that have consolidated control over the market have the leverage to dramatically improve the supply chain. Yet to date they have done little – ignoring public concerns and allowing the environmentally damaging practices for feeding and raising meat to expand largely unchecked.







## INDUSTRY IMPACTS

The bulk of the industry's impact comes from the vast quantities of feed required to raise meat, which too often is produced by plowing over ecologically important forests and grasslands and spraying toxic chemicals that wash off into surrounding waterways as the soil erodes. Untreated manure sprayed on fields or left in massive open lagoons is another major source of pollution, as is the methane belching from cows.

*Of the 23 companies we surveyed, not a single one had standards in place requiring environmental practices from their meat suppliers.*

We surveyed what America's largest food companies are doing to ensure that their meat was produced using at least minimum standards for environmental sustainability. These companies serve our meals and sell us groceries, and they have significant control over the kind of meat that ends up on our dinner tables. Grocery stores like Walmart and Whole Foods and meal outlets like McDonald's and Burger King have the power to set and enforce standards requiring better farming practices from suppliers. These would ensure that customers are getting high quality, sustainable ingredients that don't undermine customer values or the integrity of our food system.

We were shocked by what we found. **Of the 23 companies we surveyed, not a single one had standards in place requiring environmental practices from their meat suppliers.** These companies represent a snapshot of the largest fast food, grocery retail, and food service companies in the country based on sales.<sup>1,2,3,4</sup>

This report represents the first comprehensive assessment of major U.S. food brands on their environmental standards and performance for sourced meat.<sup>5</sup> Using publicly disclosed information, we assigned each company an overall grade, as well as individual grades on the three most important environmental issues related to producing meat: feed sourcing, manure processing, and greenhouse gas emissions (see detailed methodology in Appendix B). We gave additional recognition for efforts to actively promote plant-based protein options.

Despite growing consumer concerns about meat's environmental impact and the urgent risks facing our agricultural system, the food industry is doing little to improve practices in the supply chain:

- Nineteen companies had no sustainability commitments for mitigating the environmental impacts of their sourced meat whatsoever. They all received an "F," both for their overall scores and the individual scores for each highlighted issue.
- Failing companies included Whole Foods, the Amazon-acquired marketplace that bills itself "America's healthiest grocery store" and built its brand on sustainable food options. Whole Foods requires no environmental practices from meat suppliers, and in fact sources meat from some of the most polluting agribusiness in the country, including Tyson Foods and Cargill.

Bright spots were few and far between, but indicate that awareness is growing and improvements are possible:

- Walmart was the only company to earn above a failing grade, with an overall score of "D" for its supply-chain greenhouse gas emissions reduction goal, as well as agricultural programs focused on improving practices for corn and soy production and manure management. Walmart's supply-chain greenhouse gas emissions reduction program, called Project Gigaton, includes many of our recommendations for improved farming practices, but supplier participation is optional.<sup>6</sup>

- McDonald's, Sodexo, and Target also recently set goals for reducing supply-chain greenhouse gas emissions. However, these commitments currently lack details either on scope or on how these commitments will be implemented and verified across the full meat supply chain.
- McDonald's states that it is striving for 100 percent sustainably certified soy by 2020 for its European chicken,<sup>7</sup> but this commitment does not extend across its global supply chain. In addition, the company continues to do business with Cargill, which has driven the destruction of vast areas of forest and savannah despite multiple exposés. McDonald's is Cargill's largest customer in Europe, and one of its largest globally.
- The food service industry that caters meals to universities and hospitals is doing the most to promote plant-based diets, with Aramark reporting that 30 percent of its menus offer non-meat options and Sodexo reducing beef consumption through its mushroom-blended burger initiative.

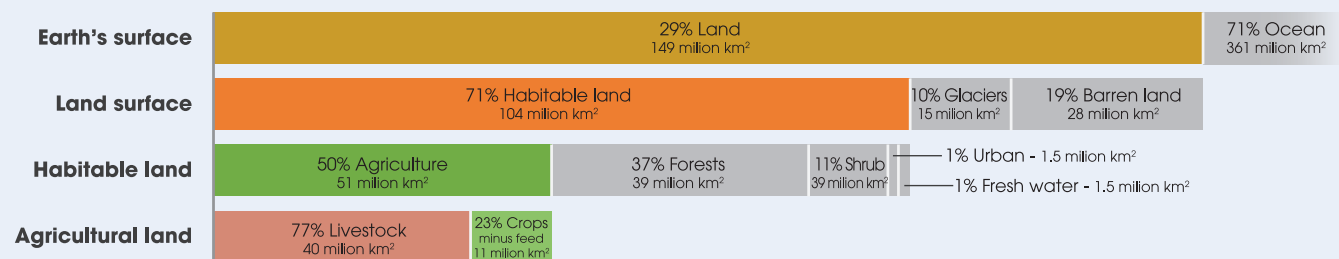
Clearly, far more needs to be done to curb meat's environmentally devastating consequences on our food system. While many of these companies have played important roles in requiring suppliers to address customer concerns on issues like antibiotics and animal welfare, America's favorite food companies are turning a blind eye to the water pollution, greenhouse gas emissions, and native ecosystem clearance taking place in their meat supply chains. **With public opinion following a similar arc of concern around environmental issues as with antibiotics and animal welfare, companies stand at a crossroads of public opinion and trust based on how they improve their supply chains.**

This scorecard aims to give consumers the chance to make better choices at the register, and to help advocates, researchers, media, and policymakers advance more sustainable agricultural practices across the supply chain. By demanding that grocery stores and meal providers source and sell sustainable meat, consumers can force the industry to adopt better practices – an outcome that will benefit public health, the environment, corporate reputation, and the future of our food system.

*While many of these companies have played important roles in requiring suppliers to address customer concerns on issues like antibiotics and animal welfare, America's favorite food brands are turning a blind eye to the water pollution, greenhouse gas emissions, and native ecosystem clearance taking place in their meat supply chains.*

## Global Surface Area Allocation for Food Production

The breakdown of Earth's surface area by functional and allocated uses, down to agricultural land allocation for livestock and food crop production, measured in millions of square kilometers. The area for livestock farming includes grazing land for animals and arable land for animal feed production.



Source: OurWorldinData.org. Licensed under CC-BY-SA by Hannah Ritchie and Max Roser.



# Company Scores

Restaurants, Grocery Stores, and Food Service Companies

Grade Range



	Overall	Sustainable Feed Sourcing	Supply Chain GHG Emissions Reduction	Responsible Manure Processing
	F	F	F	F
	F	F	F	F
	F	F	F	F
	F	F	C	F
	F	F	F	F
	F	F	F	F
	F	F	F	F
	F	F	F	F
	F	F	F	F
	F	F	F	F
	F	F	F	F
	F	F	F	F

	Overall	Sustainable Feed Sourcing	Supply Chain GHG Emissions Reduction	Responsible Manure Processing
	F	F	F	F
	F	F	F	F
<b>TRADER JOE'S</b>	F	F	F	F
	D	D	B	D
<i>Wegmans</i>	F	F	F	F
	F	F	F	F
	F	F	F	F
	F	F	F	F
<i>sodexo</i>	F	F	D	F
<b>Sysco</b>	F	F	F	F
	F	F	F	F

Individual company profiles are available at [www.mightyearth.org/meat-scorecard](http://www.mightyearth.org/meat-scorecard)



# Food Companies Need to Demand Better

America's favorite grocery stores and meal providers need to reduce the environmental devastation in their meat supply chains.

Companies should implement standards to improve sustainability in the following areas: feed sourcing, manure processing, and greenhouse gas emissions. Many of the companies we surveyed have already developed protocols for other supply chain concerns, like animal welfare and antibiotic use in livestock, or deforestation for palm oil. Similar requirements and verification protocols for environmental performance from meat suppliers are urgently needed to reduce their products' environmental impacts, from ensuring sustainable feed sourcing, manure management, and greenhouse gas reduction efforts.

Food companies should also play an active role in helping to shift consumers towards more sustainable plant-based options. The food service industry is doing the most to help shift consumer diets towards more sustainable plant-based options, with Aramark reporting a shift in 30 percent of their menus to vegetarian or vegan offerings, and Sodexo reporting a 30 percent reduction in beef consumption through its mushroom-blended burger initiative. The fast food industry has played a major role in promoting meat on global menus and needs to join these efforts to shift consumption towards plant-based foods. Companies should set a goal for a certain percentage of sales to come from plant-based foods.

In future reports, we will check in to see whether the companies surveyed here have made progress in reducing the environmental impacts of their meat supply chains. History unfortunately suggests that the meat industry won't clean up itself – but consumers have the power to force its hand. They can eat more plant-based foods and demand to know where their meat comes from and how it was produced. Changing how we raise and consume meat is urgently needed to create a food system that can support a growing population on a planet of finite resources.



*The fast food industry has played a major role in promoting meat on global menus and needs to join efforts to shift consumption towards more sustainable plant-based foods.*



# Meaty Consequences of Factory Farming

Each year, more than nine billion farm animals are slaughtered for human consumption in just the United States alone.<sup>8</sup> The meat industry's environmental impact begins with producing the vast quantities of feed required to raise livestock and continues with concentrated animal feeding operations on industrial farms.

Feeding meat consumes a full eighty percent of all agricultural land globally,<sup>9</sup> including around one-third of the land in the continental United States.<sup>10</sup> In fact, most corn and soy grown in the United States goes to raise meat.<sup>11</sup> Some meat companies, like Cargill, also act as grain traders and buy directly from farmers, while others rely on traders like Archer Daniels Midland (ADM) and Bunge. The meat companies use the feed to raise their animals, which they slaughter, process, and sell to food service companies, restaurants, and supermarkets.

The environmental damage caused by unsustainable grain production, livestock management, and waste disposal is largely unregulated around the world, and has mostly taken place in rural areas away from the scrutiny of the greater public and media. Mighty Earth's Mystery Meat report series has brought global attention to the environmental impacts hidden behind complex meat supply chains and the companies most responsible for driving them.

▼ A dog swims in the blooming algae of a pond in North Carolina. Runoff from industrial meat production contributes to these blooms, which can be toxic for people and pets, prompting warnings from government agencies like the one pictured below.

Photo: Ildar Sagdejev



## CAUTION

**TOXIC ALGAE MAY BE PRESENT**  
Lake may be unsafe for people and pets

Until further notice:

- **Do not swim or water ski in areas of scum.**

No nade o practique el esquí acuático en áreas con espuma o verdin.



- **Do not drink lake water.**

No tome el agua del lago.

- **Keep pets and livestock away.**

Mantenga alejados las mascotas y el ganado.

- **Clean fish well and discard guts.**

Limpie bien el pescado y deseche las tripas.



- **Avoid areas of scum when boating.**

Evite las áreas con espuma o verdin cuando ande en lancha.



## SOME IMPROVEMENT

Recognizing that up to 45 percent of the company's greenhouse gas emissions come from manure methane, Smithfield has begun pilot projects to convert manure into biogas and commercial-grade fertilizer. Smithfield also has a target to ensure 75 percent of its purchased grain will be grown with efficient fertilizer and soil health practices. However, the specific details of this target, including how it will be implemented and verified, are unclear.

The good news is that customers are paying attention. Consumer campaigns concerned about animal welfare and antibiotics have forced meat companies to change practices to start addressing these issues. As recognition of the meat industry's environmental consequences has grown, a groundswell of customers, shareholders, farmers, workers, and community members are beginning to demand basic environmental safeguards from agribusinesses and food companies alike. These environmental demands are critical for protecting ecosystem stability, public health, and the ability of our food system to sustain a growing global population.

## Meat's Toxic Discharge

Imagine a world where we didn't treat and manage human waste, and instead let it wash into our rivers and oceans. Modern sewage systems have underpinned human development – but it is a different story when it comes to industrial farms, whose waste is left largely untreated before it is released into the surrounding environment. Industrial farms produced 369 million tons of manure in 2012, nearly 13 times the amount of human sewage produced by the entire U.S.<sup>12</sup> Yet, while human waste must be treated in sewage-treatment plants, manure does not have to be treated before being applied as fertilizer.<sup>13</sup> **Manure and fertilizer washing off industrial farms that raise meat is the single largest cause of water pollution in the United States**, threatening drinking water and native ecosystems, as well as the health and livelihoods of those downstream.<sup>14</sup> Run-off from pollutants washing off feed fields is the main source of this contamination, as well as improperly managed manure.<sup>15</sup>



## THE DANGERS OF PIT LAGOONS

Pictured at left is a flooded hog-manure lagoon in Wayne County, North Carolina, on October 11, 2016. Manure is often stored in temporary holding containers, such as manure lagoons, until it is applied to fields. Manure lagoons, which are equivalent in size to several football fields, evaporate hundreds of pounds of toxins, such as ammonia, methane, and hydrogen sulfide, and are prone to leaking or overflowing during rainfalls. Ammonia and hydrogen sulfide are both heavier than air and consequently form a whitish haze across the countryside, where they are inhaled by community members until rain removes these chemicals from the air and washes them into the soil. In addition, manure contains more than 150 pathogens, comprising parasites, bacteria and viruses that are harmful to human health.

When manure lagoons get too full, they are "dewatered," with about 20 percent of the liquid "aerosolized" – i.e., sprayed onto nearby fields, where the aerosolized droplets of animal feces carrying antibiotic resistant bacteria and other pathogens can travel hundreds of miles through their air and be inhaled by neighboring communities. Even more shocking is that this massive public health concern is left largely unregulated and will continue to expand across the country unless the public demands reforms.<sup>13</sup>

Photo: Rick Dove, Waterkeeper Alliance



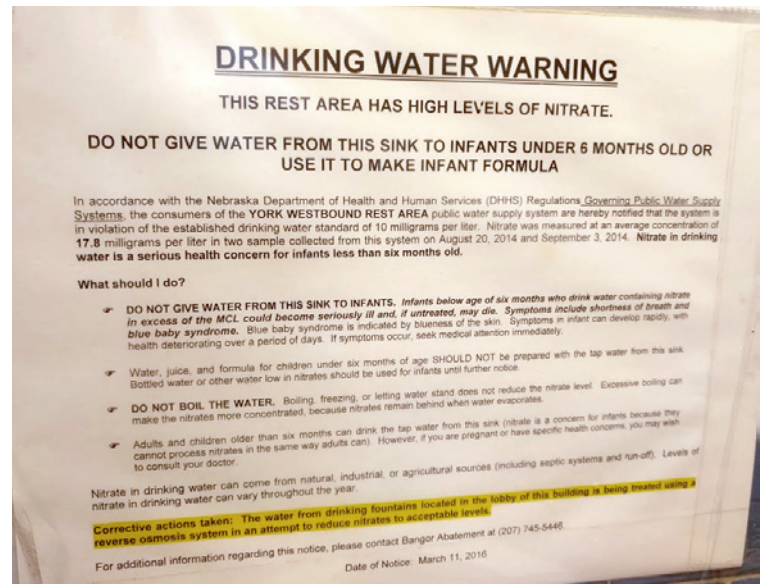
These two issues can be intertwined, since manure is often spread on feed crop fields as fertilizer to cheaply offload animal waste. However, factory farms produce more manure than plants can absorb.<sup>16</sup> The surplus manure washes off fields into surrounding waterways, increasing nitrate levels as unregulated “non-point source nutrient pollution” (or pollution that accumulates from several diffuse sources, rather than originating from a single source). High rates of soil erosion and destruction of natural buffers such as grasslands or wetlands further exacerbate the pollution washing off farms that feed and raise meat. The USDA estimates that two-thirds of American cropland fails to meet best management criteria for fertilizer runoff.<sup>17</sup>

Nitrate and phosphorous are the main pollutants washing off feed farms into surrounding waterways.<sup>18</sup>

**This contamination undermines the public water systems that have been essential to economic, medical, and social advancement in the U.S.** Excess nitrates in drinking water reduce the amount of oxygen in the blood, which can cause a deadly condition known as “blue baby syndrome” in infants and is linked to various types of cancer. High levels of phosphorus runoff are fueling toxic algae blooms in waterways across America, resulting in beach closings, damaged fisheries, overburdened water utilities, and reduced recreation revenues.

The combination of nitrate and phosphorus runoff accumulating downstream is causing commercially important fisheries like the Gulf of Mexico, Chesapeake Bay, and Lake Erie to collapse into massive hypoxic dead zones – areas lacking sufficient oxygen for aquatic life to survive. Last year, the hypoxic dead zone in the Gulf of Mexico was the largest in history, spanning more than 8,000 square miles. The National Oceanic and Atmospheric Administration estimates that hypoxia in the Gulf of Mexico costs the American food and tourism industries \$82 million every year.<sup>19</sup> **The EPA calls water pollution from excess nitrogen and phosphorus “one of America’s most widespread, costly, and challenging environmental problems.”**

The Gulf Hypoxia Taskforce<sup>20</sup> and Chesapeake Bay Watershed Taskforce<sup>21</sup> both highlight the agricultural reforms called for in this report as critical strategies for reviving these watersheds, such as improving feed production practices through cover cropping, conservation tillage, and fertilizer efficiency, as well as better manure management.



▲ Nitrate contamination in drinking water is so severe in some meat-producing regions of the country, like northeastern Nebraska, that doctors have recommended that pregnant women drink only bottled water. The drinking water for over 17 million Americans is contaminated by suspected cancer-causing pollution from industrial agriculture, according to the Environmental Working Group.

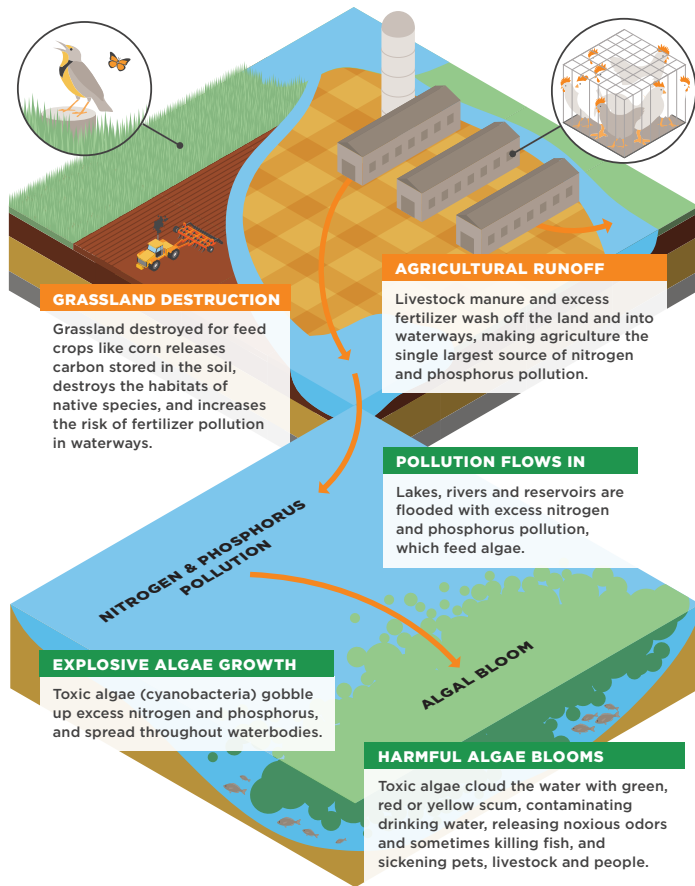
### SOME IMPROVEMENT

Several food brands, such as PepsiCo and Kellogg, have set and begun implementing sustainable sourcing commitments for reducing greenhouse gas emissions and runoff pollution from U.S. corn production. Meat and feed companies need to follow suit and scale these practices across their vast supply chains.





## Runoff Pollution Starts Upstream



## Destroying Native Ecosystems

Approximately 60 percent of the planet’s biodiversity loss is connected to meat production, particularly the cultivation of feed crops whose farmers plow over ecologically important ecosystems. In Latin America, that means the clearing of rainforest for grain fields and pastures. In the United States, it means the destruction of the iconic prairie of the Great Plains, as well as wetlands.<sup>22</sup>

American prairie is disappearing at an astonishing rate, as it gets plowed over for conversion into huge monocultures of wheat, corn, and soy. The rate of habitat loss is one of the highest in the world, nearly equal to the destruction of rainforests in Brazil and Southeast Asia.<sup>23</sup> Eight percent of the Great Plains has been plowed for farmland just since 2009. And while companies have responded to palm oil and soy campaigns in the tropical world, they have failed to take similar actions in the United States. Nearly half of the Great Plains is already used for ranching and crop farming.

When these ecosystems disappear, so do the native species that live in them, including monarch butterflies, bumblebees, and prairie dogs. Depleting biodiversity in the food system reduces its resilience to pests and degrades key ecosystem services, such as pollination. It also exacerbates water contamination by removing natural buffers between farms and waterways where polluting runoff collects. Our analysis of recent United States Geological Survey data found that nitrate concentrations are increasing in those regions of the country where the rate of conversion from natural grassland to corn and soybean fields was highest.<sup>24</sup>

### Toxic Algae Impacts

**WARNING! DO NOT:**

- DRINK**  
Contaminated water can make people and animals ill
- FISH**  
Handling exposed fish is dangerous
- SWIM**  
People and pets risk illness by entering contaminated water
- SMELL**  
Emits noxious, unpleasant fumes
- EAT**  
Eating exposed fish can cause illness
- HAVE FUN**  
People and pets should avoid all recreation in affected waters

## Solutions

**ECOSYSTEM CONSERVATION**

Protecting natural grassland and wetlands from development can reduce fertilizer pollution, help to maintain a healthy environment for fish, wildlife, and plants, and make it harder for toxic algae to take hold.

**AQUATIC BUFFERS**

Creating and maintaining natural buffers—using trees, shrubs and other plants—between farmland, development and waterways can help filter out excess nitrogen and phosphorus before they reach the water.

**COVER CROPS**

By planting farmland with cover crops instead of leaving the land bare between cash crops, farmers can protect soil from erosion and absorb excess fertilizer, helping to keep nutrients out of nearby waterways.

Prairies, wetlands, and forests are also natural carbon sinks that absorb and store greenhouse gases. Studies have found that converting a natural grassland to an agricultural field releases about 50 percent of the carbon in the soil.<sup>25</sup>





▲ American prairie is disappearing at an astonishing rate, as it gets plowed over for conversion into huge monocultures of wheat, corn, and soy. The rate of habitat loss is one of the highest in the world, nearly equal to the destruction of rainforests in Brazil and Southeast Asia. The loss of native vegetation exacerbates soil erosion and runoff pollution from fields into surrounding waterways.





## Fueling Climate Change

The meat industry ranks as one of the top sources of greenhouse gas emissions globally. A recent analysis by GRAIN found that the world's three largest meat companies – JBS, Tyson, and Cargill – emitted more greenhouse gases in 2016 than the entire nation of France, and the top five meat and dairy companies emitted more greenhouse gases than Exxon Mobil.<sup>26</sup> The UN has said livestock (including eggs and dairy) accounts for nearly 15 percent of the world's total greenhouse gas emissions.<sup>27</sup> Other organizations have estimated that the true number could be as high as 50 percent.<sup>28</sup>

Meat's greenhouse gas emissions are spread across the supply chain. The single biggest source is feed production, including the huge amounts of carbon released when farmers convert natural habitats to agricultural fields, as well as the emissions from fertilizers that release nitrous oxide – a greenhouse gas nearly 300 times more potent than carbon dioxide.<sup>29</sup> The next biggest source is methane gas that animals release as belches and flatulence during digestion. The rest is attributable to manure decomposition and the processing and transportation of animal products.

Companies can reduce emissions by ensuring fertilizer is applied more judiciously and adopting centralized manure processing, instead of the common practice of leaving manure in open pits or spreading more on fields than can actually be absorbed, and by protecting native ecosystems that store and sequester carbon. The United Nations has also said developing better feeds and feeding techniques is essential to reducing greenhouse gas emissions from livestock. Feed alternatives like small grains, insect protein, and seaweed have shown potential to reduce meat's emissions.

▼ Forests are burned in Argentina to clear land for soy production. Industrial meat production is a top driver of native ecosystem destruction globally.





# Industry Consolidation

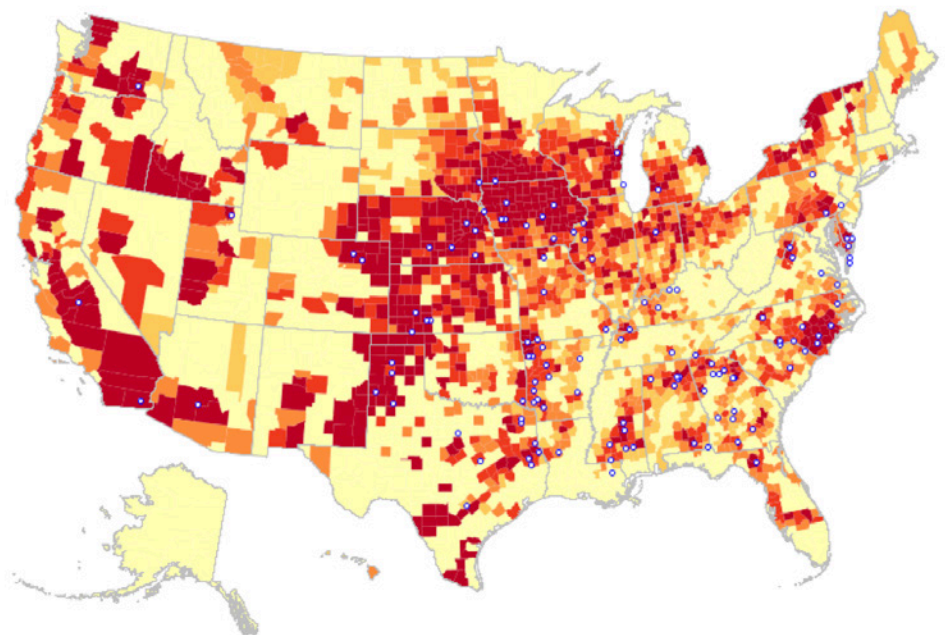
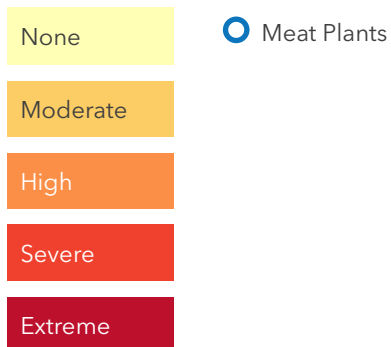
The small family farm is in many places a thing of the past: Today a majority of the beef, poultry, and pork markets are each controlled by just four to five companies, with similar consolidation for corn and soy.

These companies largely rely on a contract-farming model, whereby the corporate parent company outsources the animal-rearing to farmers who are contractually bound to following the production practices set by the corporate owner. The poultry and pork industry has undergone the most vertical integration, with cattle slightly more fragmented at the early stages of the supply chain but similarly consolidated at the feedlot and slaughter stages. More than 95 percent of farm animals in the United States are raised in factory farms.<sup>30</sup>

In "Mystery Meat II," we investigated the companies most responsible for driving the supply chains and environmental consequences of meat production. We found that no company has mastered the meat market quite like Tyson Foods, which makes up about 20 percent of the beef, poultry, and pork markets and supplies one out of every five pounds of meat that people in the U.S. eat.<sup>31,32</sup> Changing the practices of just a few companies like Tyson can dramatically reshape how we produce meat, and its consequences on the environment in the United States and around the world.

## Factory Farm Concentration

### Density Level

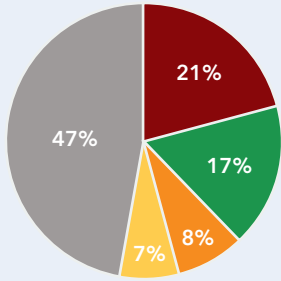


Source: Food & Water Watch, Factory Farm Map, [www.factoryfarmmap.org](http://www.factoryfarmmap.org)



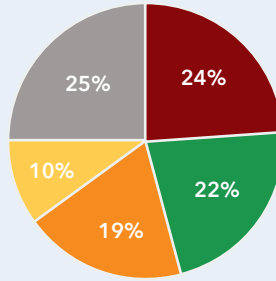
## Leading U.S. Meat Producers

### U.S. CHICKEN PRODUCERS



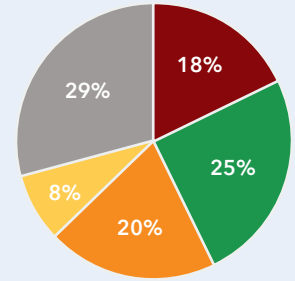
- Tyson Foods
- Pilgrim's Pride
- Sanderson Farms
- Perdue Farms
- Other

### U.S. FED BEEF PACKERS



- Tyson Foods
- JBS USA
- Cargill
- National Beef
- Other

### U.S. PORK PACKERS



- Tyson Foods
- Smithfield
- JBS USA
- Hormel
- Other

Source: Tyson Foods, Inc. Investor Presentation May 2017



### THE INDUSTRIALIZATION OF MEAT

Tyson pioneered the industrialization of the American meat industry and has worked directly with the fast-food industry to invent products like McDonald's Chicken McNuggets and Burger King's Chicken Fingers. Thirty percent of Tyson's sales in 2016 went to the food service industry. Another 53 percent were sold directly to consumers under a variety of popular labels, including Jimmy Dean, Hillshire Farms, Ball Park Franks, and Sara Lee. To supply all this meat in the U.S., Tyson needs more than 5 million acres of land – an area larger than New Jersey – just for growing feed crops. We found in "Mystery Meat II" that Tyson's meat facilities are heavily concentrated in those regions of the country now suffering the highest nitrate pollution. Tyson is the largest meat company in the United States, and consistently ranked among its top polluters by the EPA.<sup>32</sup>

Photo: Flickr Creative Commons/Ryan Basilio



# Americans Want Better

The public is coming to realize the downsides of the American way of producing meat and mobilizing to demand reforms.

From campaigns on antibiotics, animal welfare, deforestation, and water contamination, to growing demand for plant-based alternatives, customers are increasingly informed and vocal about their desire for sustainable alternatives to conventional meat. Multiple consumer surveys show demand for more sustainable meat alternatives is growing rapidly. A 2017 survey found that 35 percent of Tyson customers said it was “very important” that the company tries to reduce waste and pollution, a six percent increase from the previous survey.<sup>33</sup> Other surveys have found as much as 81 percent of the population wants more sustainable food options.<sup>34</sup>

Tyson and other major meat companies are beginning to realize that improving their sustainability image will be critical to earning public trust and dollars. Responding to shifting consumer trends, Tyson’s new CEO Tom Hayes has pledged to rebrand Tyson as “the most sustainable protein company in the

▼ Hundreds of thousands of people across the U.S., including over 300 local and national environmental, business, worker, farmer, restaurant, and public health groups, have joined the #CleanItUpTyson campaign urging Tyson to adopt more sustainable farming practices across its vast core meat supply chain. In April, a coalition of Tyson Foods shareholders filed a resolution urging the company to reduce water contamination that received support from 63 percent of non-family shareholders. The company responded with a public commitment to improve farming practices on two million acres of feedgrains in the U.S., covering about half of its supply chain, but has yet to provide any details on what this commitment means or how it will be implemented. Meanwhile, Tyson appears to be following business as usual as it pushes through new expansion plans in Tennessee and Virginia’s Eastern Shore with little community involvement or safeguards against pollution in place.







world,” pointing to growing demand for plant-based proteins. While the company has snagged congratulatory headlines for its timely investments in plant-based protein start-ups, the polluting practices in its own supply chain are continuing to expand largely unchecked. Cargill,<sup>35</sup> Tyson,<sup>36</sup> and Smithfield<sup>37</sup> have also recently announced commitments to reduce supply chain greenhouse gas emissions, but these announcements lack implementation details or methods for verifying progress, particularly around feed sourcing and manure management.

Transparency, verification, and accountability are critical for establishing trust. Consumers need to bring real pressure to bear on Tyson and its peers in order to make sure commitments are strong and backed by real action to put our agricultural system on a more sustainable path.

## Recommendations for Improving Meat

The brands consumers trust to sell high quality food need to demand better from meat suppliers. Companies that sell large quantities of meat have a critical role to play in ensuring suppliers are using environmentally sustainable practices or dropping suppliers that refuse to comply. Responsible food companies need to adopt standards that require meat suppliers to implement the following minimum environmental practices:

- **Sustainable feed sourcing:** All meat must be raised on feed from suppliers verifiably implementing practices to prevent agricultural run-off pollution, soil erosion, and native ecosystem clearance across the supply chain. These practices include: enrollment in a nutrient optimization plan to prevent excess fertilizer application; implementation of cover crops and conservation tillage to protect soil health and reduce run-off; and a policy against clearing native ecosystems. Incorporating rotationally-raised small grains into the feed ration is critical for supporting diverse crop rotations and improving soil health, and certain feed additives like seaweed can help reduce livestock emissions.
- **Responsible manure management:** Meat companies must provide centralized manure processing facilities to process all manure generated by direct and contract suppliers and have a policy against siting new or expanded CAFOs in watersheds already classified as “impaired” from nutrient pollution.
- **Greenhouse gas emissions reduction:** Each retailer must have a time-bound goal to reduce GHG emissions across its supply chain, including requiring meat suppliers to reduce emissions from direct and contract suppliers, as well as feed production.

These standards need to be enforced using time-bound targets and verification methods, such as third-party audits, with progress reported to the public on a regular basis.

*Companies that sell large quantities of meat have a critical role to play in ensuring suppliers are using environmentally sustainable practices or dropping suppliers that refuse to comply.*

## COMMUNITIES MOBILIZE AGAINST TYSON EXPANSION

Last September, citizens of Tonganoxie, Kansas discovered that Tyson had been working behind the scenes for months to develop a \$320 million chicken processing plant in their community. Local politicians have traditionally welcomed such projects as boons to the local economy, but this time was different: the citizens of Tonganoxie mobilized in protest, citing concerns about pollution and other local impacts, and the city council passed a unanimous resolution opposing the plant, forcing Tyson to withdraw.

*"It was clear to us that this massive expansion of industrial chicken operations was being planned without community input or much consideration for how it would impact our environment, public health, and infrastructure" said Cecilia Pruitt, mother and community activist for No Tyson in Tongie. "We were able to protect our hometown and stand in solidarity with our neighbors across the country who are facing contaminated water, overburdened utilities, noxious fumes, and the numerous other impacts from this highly polluting industry."*

After Tyson Foods' \$320 million processing facility was rejected in Kansas last September, the company announced its intention to expand in Humboldt, Tennessee. Tennessee recently eliminated water quality permitting requirements for poultry producing CAFOs, and the region's waterways are already listed as Category 5 on the EPA's 303(d) list of impaired and threatened waterways due to phosphorus pollution. Local citizens are just starting to understand the full range of impacts that 600 new chicken houses would bring and are organizing against the expansion.

David Livingston, a lifelong Haywood County resident, lawyer and conservative candidate for county mayor said, *"When you elevate the smell, risk of water contamination, increase in cancer, depressing of property values and lack of actual employment opportunities, you can only come to one conclusion: this is a dirty industry that offers little while costing us a lot."*

Tyson is also planning a dramatic expansion in Virginia Eastern Shore, which borders the Chesapeake Bay, a watershed just starting to recover from the poultry industry's runoff pollution in neighboring Maryland. Tyson has refused to provide specifics about its expansion plans, but local groups estimate that between 250-500 new chicken houses are planned or under development. In fact, Tyson has already started construction despite lacking the appropriate water quality and withdrawal permits. The region where Tyson is expanding is classified as a UNESCO Biosphere Reserve for its unique ecological value. Citizens have packed townhall meetings with concerns about manure runoff, ammonia emissions, and water shortages, which would negatively impact the region's tourism, aquaculture, property values, and overall quality of life.

Jay Ford, Executive Director of Virginia Eastern Shorekeeper, said, *"The Chesapeake Bay has suffered for years from the poultry industry's manure and runoff in Maryland. We've seen how polluting industrial chicken operations can be, and have serious concerns that Tyson is now trying to push its way down here to Virginia without any real safeguards in place for protecting our air, water, and health from the manure and other waste streams coming from its chicken houses."*





## APPENDIX A

# Survey Results

To understand how American food brands are addressing environmental concerns around sourced meat, we surveyed 23 of the largest grocers, food distributors, and meal provision companies in the U.S. on their publicly disclosed sustainability standards for meat suppliers.

We assigned each company an overall A to F grade, as well as specific grades on feed sourcing, manure management, and greenhouse gas emissions. (For a more detailed explanation of our scoring methodology, see Appendix B.)

Our survey revealed just how much the industry needs to improve:

- Twenty-two of the 23 companies scored an “F” for the overall score.
- Twenty companies also scored an “F” in all three categories: sustainable feed sourcing, responsible manure processing, and greenhouse gas emissions.
- Walmart, which is Tyson’s single largest customer, scored the highest of all companies, receiving a “D” for its overall grade. The company’s better grade was due to Project Gigaton, Walmart’s commitment to reduce greenhouse gas emissions in its supply chain by 1 gigaton by 2030. However, participating in Walmart’s project is optional. While the project’s suggested practices include many of our recommendations on greenhouse gas emissions and sustainable feed, it is unclear whether meat suppliers are participating.
- Food service companies Sodexo, Aramark, and Compass Group are all engaged in initiatives to promote plant-based options on hospital and college campus menus. However, there do not appear to be specific targets for promoting uptake of these options, and there are no environmental standards for meat sold on their menus.

- The “F” received by Whole Foods was particularly concerning, given the company’s role in setting and upholding sustainability standards in the food industry. Whole Foods has said it will set targets to reduce GHG emissions in its supply chain, but it has not provided details on whether this would apply to meat. The company is a customer of several of the most polluting meat suppliers like Tyson and Cargill.

American food retailers must do better – not just for their customers, but for the health of our planet as well. Our food system is increasingly fragile as waters become contaminated, soils erode, climate destabilizes, and biodiversity disappears. Trusted food brands are unfortunately enabling these problems by selling unsustainable meat, but they can and must become part of the solution by ensuring better practices are adopted across their supply chains. Many companies have already done so on issues like animal welfare, antibiotics, deforestation, child labor, and more. It’s time to get serious about meat and drive reforms that protect our environment and put agriculture on a more sustainable path. The future of food depends on it.

Several of the companies we surveyed claim participation in industry roundtables for sustainable beef and soy as part of their environmental stewardship programs. However, the Global and U.S. Roundtables for Sustainable Beef don’t set required standards or certifications for the industry; they merely provide guidance on best practices. Both roundtables have faced criticism from environmental, consumer, animal welfare, farmer and public health groups for promoting weak guidelines, so we did not include them in assessments of company performance.<sup>38</sup>



## APPENDIX B

# Scoring Methodology

Grade Range



## Scoring criteria

Companies will receive an overall score of A, B, C, D, or F, based on their publicly disclosed policies and performance within each of the categories below. The methodology for scoring each commitment category is below. Companies will also receive recognition (a badge) for specific initiatives to increase consumption of plant-based options. Individual company profiles are available at [www.mightyearth.org/meat-scorecard](http://www.mightyearth.org/meat-scorecard).

### SUSTAINABLE FEED SOURCING

#### Commitment Strength and Scope (Total points possible: 2)

- Comprehensive commitment: Company commitment requires meat suppliers to implement full range of sustainable feed sourcing best practices across full scope of supply chain (2 points)
- Partial commitment:
  - Company implements pilot program that addresses sustainable feed sourcing best practices (0.5 point)
  - Company partially implements sustainable feed sourcing best practices (0.5 point)

#### Implementation (Total points possible: 2)

- Company has timebound targets for ensuring supplier compliance with commitment (1 point)
- Company provides clear metrics and verification mechanism (third-party audits, certification schemes, or other verification scheme) to ensure compliance with commitment (1 point)

#### Reporting (Total points possible: 1)

- On an annual basis, company publicly reports on its policies, commitments, progress, and outcomes on its website, sustainability report, and/or annual report (1 point)

### SUPPLY CHAIN GHG EMISSIONS REDUCTION

#### Commitment Strength and Scope (Total points possible: 2)

- Comprehensive commitment: Company has a science-based greenhouse gas emissions reduction target that applies to all sourced meat and feed (Scope 2 and 3), and therefore to both direct and indirect suppliers (2 points)
- Partial commitment:
  - Company implements pilot program that addresses GHG reduction from sourced meat and feed (0.5 point)
  - Company partially implements supply chain GHG reduction commitment (0.5 point)

#### Implementation (Total points possible: 2)

- Company has timebound targets for ensuring supplier compliance with commitment (1 point)
- Company provides clear metrics and verification mechanism (third-party audits, certification schemes, or other verification scheme) to ensure compliance with commitment (1 point)

#### Reporting (Total points possible: 1)

- On an annual basis, company publicly reports on its policies, commitments, progress, and outcomes on its website, sustainability report, and/or annual report (1 point)



## RESPONSIBLE MANURE MANAGEMENT

### Commitment Strength and Scope (Total points possible: 2)

- Comprehensive commitment: Company policy requires meat suppliers to implement centralized manure processing and to have policies against siting or contracting with new or expanded CAFOs in watersheds already classified as impaired by the EPA (1 point)
- Partial commitment:
  - Company implements pilot program to support select suppliers in implementing responsible manure processing (0.5 point)
  - Company partially implements responsible manure processing commitment (0.5 point)

### Implementation (Total points possible: 2)

- Company has timebound targets for ensuring supplier compliance with commitment (1 point)
- Company provides clear metrics and verification mechanism (third-party audits, certification schemes, or other verification scheme) to ensure compliance with commitment (1 point)

### Reporting (Total points possible: 1)

- On an annual basis, company publicly reports on its policies, commitments, progress, and outcomes on its website, sustainability report, and/or annual report (1 point)

## OVERALL SCORE FOR EACH COMMITMENT CATEGORY

<b>A</b>	4.5-5 points
<b>B</b>	3.5-4 points
<b>C</b>	2.5-3 points
<b>D</b>	1.5-2 points
<b>F</b>	0-1 points

## OVERALL SCORE PER COMPANY

<b>A</b>	13.5-15 points
<b>B</b>	10.5-13 points
<b>C</b>	7.5-10 points
<b>D</b>	4.5-7 points
<b>F</b>	0-4 points



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