

A MILK COMPANY

Starbucks is one of the world's most popular and widespread coffeehouse brands. It has over 22,000 cafes in 66 countries.¹ In Manhattan alone there are 9 Starbucks per square mile.²

Starbucks built its reputation on delivering specialty coffee, putting a lot of energy into telling the story of its coffee from field to café. But what the company fails to address is the fact that each year, it purchases over 140,000,000 gallons of milk—enough to fill an Olympic-sized swimming pool 212 times.³

The fact is that Starbucks is a milk company as much or more than it is a coffee company. It is beyond time that it addresses the many negative impacts the industrial conventional dairy supply chain, from feed crop to cup, has on animal welfare and human and environmental health. If Starbucks' goal, as stated on the company's website, is to "share great coffee with [its] friends and help make the world a little better," it is essential that the company transitions to organic milk.⁴ By setting the organic milk standard for coffee chains, Starbucks can demonstrate a serious commitment to providing environmentally and socially conscious products. Competitor companies like Pret A Manger are able to offer organic milk at a lower price than Starbucks charges for conventional dairy.

It is our responsibility as consumers to vote with our dollars and use our voices to persuade the dairy industry to improve. By supporting ethical coffee companies over companies like Starbucks, we can turn our convictions into tangible change. By reducing or ending our consumption of dairy we can achieve the same, or even greater, impacts. We can also write and call dairy companies and encourage them to go organic to demonstrate the volume of people demanding reforms. When we look at the realities of the dairy industry, including its unsustainable health and environmental impacts and extreme mistreatment of animals, it is clear that we must act.



MILK FACTORY FARMS & ANIMAL MISTREATMENT

The dairy industry is not what it once was. Despite consumer ad campaigns showing happy cows, the industry in general is more concerned with profit and efficiency than the welfare of the cows themselves. Since Starbucks does not have a dairy purchasing policy in place that specifies organic milk, nor does it mandate any animal welfare standards, most of the company's milk is sourced from industrial-scaled dairy farms. Dairy production is concentrated in only a few states, with 86% of the US milk supply produced on only 26% of the nation's farms.⁵

In the last few years, the dairy industry has become so consolidated that a few select groups control 83% of the US milk supply; Dean Foods controls 40% of the market, and combined, the four largest co-ops (Dairy Farmers of America, California Dairies, Land O' Lakes, and the Northwest

Dairy Association) control 43%.⁶ Consolidation of the industry resulted in the prevalence of dairy cows raised in large concentrated animal feeding operations (CAFOs, also known as factory farms), defined as farms with 500 or more cows.

Because of the sheer number of animals packed into tighter and tighter spaces, CAFOs are linked to animal welfare problems, as well as public and environmental health concerns.⁷ The number of cows on all American industrial dairies nearly doubled to 4.7 million between 1997 and 2007.⁸ With such large numbers in a herd, dairy cows have little to no access to grazing, instead consuming a diet of mostly genetically engineered (GE) corn, soy, cottonseed, and alfalfa.

Despite such large herds, the low cost of milk still results in farmers trying to maximize production of milk per cow. The average amount of milk each cow produces per year has risen from 7,000 pounds in 1970 to more than 22,000 pounds in 2012. Dairies have achieved this astonishing increase in production through methods both deleterious to the health of consumers and torturous to dairy cows. In addition to



the use of hormones and antibiotics, rigorous milking and feeding schedules and constant confinement contribute to higher milk outputs and much lower lifespans for cows.

The low lifespans and high mortality rates seen in CAFO's can be attributed to several health problems including infections, respiratory problems, leg injuries, and diarrhea. The numerous conditions dairy cows suffer and die from are easily preventable and treatable, but overlooked in the pursuit of higher production and increased profit.⁹

When it comes to dairy cows, there is one key thing to remember: in order for a cow to produce milk, it must first give birth to a calf. In industrialized dairy operations, calves are seen more as a byproduct of milk production rather than as actual living beings. Immediately after birth, they are taken from their mothers. Bull calves are either killed, sent to veal production facilities, or raised for hamburger meat.¹⁰ Female calves become milk producers at fifteen months.¹¹

Every year, farm operators impregnate dairy cows through artificial insemination (the industry standard) so these animals can spend the year continually lactating. Once lactation has stopped, the farmers quickly start the cycle again. Throughout the process of impregnations and lactation, cows live in extremely crowded and unnatural conditions such as standing on the concrete floor of a barn surrounded by their own urine and feces.¹²

Once industrial dairy cows have completed their 4-5 prime years of production, they are sent to a slaughterhouse and sold off as hamburger meat (despite the fact that a healthy cow's natural lifespan is 15-20 years).¹³

Then there are the repercussions that CAFOs have on people and the planet. The Centers for Disease Control (CDC) report "Understanding Concentrated Animal Feeding Operations and Their Impact on Communities" notes that the problematic environmental and health impacts of CAFOs are a result of the concentration of animals who produce 3 to 20 times more waste than humans every year.¹⁴ One large dairy factory farm (1,000+ cows) produces as much sewage as most large cities, such as Los Angeles.¹⁵ Cattle manure and gases, such as methane, have a drastic impact on ambient air qual-

ity and are a major contributor to climate change. In addition, not only is dairy production extremely water intensive, with producers using up to 150 gallons of water per cow per day, the waste can leach into ground water, polluting numerous ecosystems and potable water sources.¹⁶

ANTIBIOTICS IN LIVESTOCK PRODUCTION

While antibiotics are a key resource for human health, one of the many dirty secrets of industrialized dairy production is the widespread misuse of them. The livestock industry uses 80% of the annual antibiotics supply in the US, equaling 24.6 million pounds.¹⁷ CAFO conditions increase animal stress and poor hygiene, which increase pathogen development and growth, resulting in the overuse of antibiotics.

In the dairy industry, antibiotics are most often used to treat cows who suffer from mastitis, a condition that results in painful inflammation of the cow's udders. The most common antibiotic used to treat mastitis is penicillin.¹⁸ Mastitis is directly linked to unsanitary conditions, exposure to high levels of feces and stagnant water, confinement, poor nutrition, and high frequency of milking.¹⁹ All of these conditions are a result of an industrialized dairy system; and many of the mastitis infections could be prevented with improved living conditions and access to pasture.



Antibiotics are also commonly employed in a non-therapeutic manner (any use of antibiotics in food animals without disease or documented disease exposure) on US dairy feedlots. The most common non-therapeutic use of antibiotics in the livestock industry is for prevention of disease and growth promotion. Using antibiotics for non-therapeutic purposes has led to the development of antibiotic resistant (AR) bacteria (“superbugs”) in the American food system, which poses a major risk to human health. In fact, a superbug was recently found on a Midwestern hog farm that is resistant to treatment by carbapenems, a class of drugs used after all other antibiotics have failed.²⁰

CAFOs serve as a perfect breeding ground for bacteria; and bacteria (and their genes) can transfer from animals to humans through contact with animals, infected meat, and the consumption of crops fertilized with manure from feedlots.²¹ These bacteria have been overly exposed to antibiotics and have developed a resistance to the antibiotics we depend on most. According to the 2013 CDC report “Threat Report on Antimicrobial Resistance,” of the 2 million people who contact AR diseases each year, 23,000 of the cases result in death.²² Many of these infections and deaths could be prevented by stopping the unnecessary use of antibiotics in factory farms.

USE OF HORMONES IN THE DAIRY INDUSTRY

In response to consumer concerns, many dairies have cut down on the use of growth hormones, like rBGH, but they are still commonly used. This is cause for concern as the use of hormones has serious implications for the health of cows and unknown implications for consumers.

Recombinant bovine growth hormone (rBGH) is a synthetic hormone owned by Monsanto and used widely in US dairy production. This hormone is used to increase cows’ milk production. Use of rBGH is documented to cause adverse effects in cows such as increased infections like mastitis, foot problems, and injection site infections.²³ The rise in mastitis infections has resulted in the increased use of antibiotics both to treat animals and as a preventative measure. Overuse of antibiotics is responsible for the rise of antibiotic

resistant bacteria. It is relevant to note that Bayer, which is in the process of purchasing Monsanto, owns antibiotics to treat mastitis. Once merged, Bayer will benefit financially from increased infection rates.²⁴

All of this is completely unnecessary; the reality is we currently produce way more milk than our country needs. In 2016, the Wall Street Journal reported that in the first eight months of the year US dairy farmers had dumped 43 million gallons of milk, equivalent to 66 Olympic sized swimming pools.²⁵ Instead of producing excess, non-organic milk using antibiotics and hormones, we need to produce the correct quantity of high-quality milk to meet the actual demand for dairy products.

THE “FIVE FREEDOMS” OF ANIMAL WELFARE

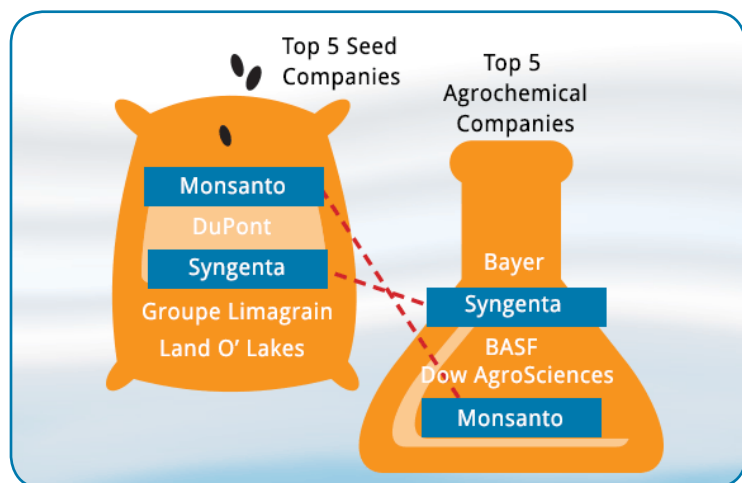
The current treatment of livestock in the dairy industry is unacceptable, but what does proper animal stewardship look like?

In 1965, an animal welfare committee appointed by the British government created a report on the proper treatment of animals. Because of this report, the Farm Animal Welfare Advisory Committee was created and this group finalized the “Five Freedoms” of animal welfare.

These freedoms are:

1. Freedom from Hunger and Thirst: by ready access to fresh water and a diet to maintain full health and vigor.
2. Freedom from Discomfort: by providing an appropriate environment including shelter and a comfortable resting area.
3. Freedom from Pain, Injury or Disease: by prevention or rapid diagnosis and treatment
4. Freedom to Express Normal Behavior: by providing sufficient space, proper facilities and company of the animal’s own kind.
5. Freedom from Fear and Distress: by ensuring conditions and treatment which avoid mental suffering.²⁶

For the dairy industry to reform its current abhorrent mistreatment of animals, its participants should take these five freedoms into account. Transitioning to a model which allows farm animals to live comfortable and healthy lives expressing their natural behaviors is the only way for the dairy industry to become ethical and sustainable.



GE CROPS FOR MILK

Dairy products rely heavily on genetically engineered (GE) crops (commonly referred to as GMOs). The US animal feed industry is the largest purchaser of US corn and soybean meal.²⁷ Soy and corn are not only the top crops grown in the US, but are also the most likely to be GE. With 94% of corn, 93% of soy, and 96% of cottonseed grown in the US are GE.²⁸ This vast section of our food system is controlled by only a few powerful corporations. Of the 40% of the world's GE crops that are grown in the U.S, Monsanto controls 80% of the GE corn market and 93% of the GE soy market.²⁹ Monsanto's biotech seeds and traits accounted for 87% of the total world area planted with GE seeds in 2007.³⁰

Contrary to industry assertions, GE corn and soy do not feed the world. Nearly 48.7% of GE corn goes to animal feed, 30.8% to ethanol production, and 12.1% makes up the many hidden additives found in 70% of processed foods.³¹ Additionally, only 1% of soybeans are used to feed people.³² The modern cow's diet is a direct result of the consolidation of the dairy industry and the CAFO lifestyle, despite the fact that cows were not intended to live on a diet of corn and soy.

Furthermore, contrary to industry claims, GE corn and soy have not been proven safe for consumption by livestock (or humans). Several animal studies have demonstrated significant biological impacts resulting from the ingestion of GMOs; and the health implications are still unknown and require additional research.³³ There is no scientific consensus regarding the safety of GMOs.

GE crops designed in partnership with herbicides put a heavy toll on soil quality; together, the GE system results in the elimination of key soil microbes, causing a decrease in biodiversity.³⁴ The prevalence of GE crops has led to the mass adoption of industrialized mono-cropping, causing a decline in soil quality by reducing its water absorbability and retention.³⁵

Ongoing depletion of soil quality is directly linked to an increased need for synthetic fertilizers. The heavy use of nitrogen and phosphorus fertilizers in key agricultural regions, such as the Mississippi River Delta, run off into waterways and increase nutrients, causing algal blooms resulting in large oceanic dead zones.³⁶ The high levels of algal blooms decrease the available oxygen for fish species causing large die offs and uninhabitable areas, impacting aquatic biodiversity and oceanic health. The dead zone in the Gulf of Mexico reaches high points during summer months, growing to the size of Connecticut in 2014.³⁷

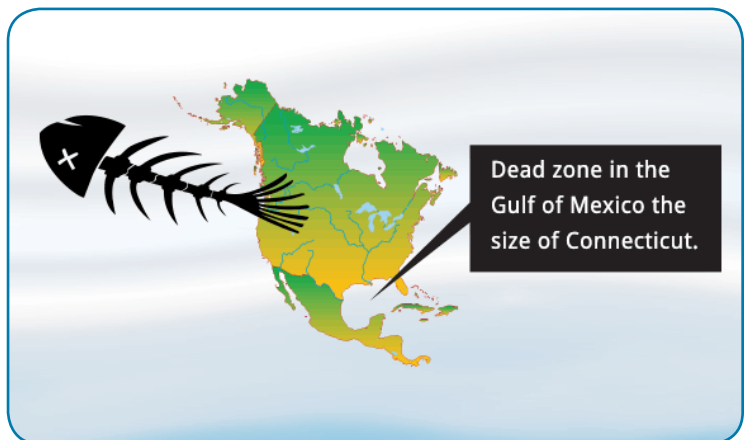
Combined, these environmental impacts of GE feed make conventional dairy an extremely resource-intensive product.

PESTICIDES FOR DAIRY CROPS

The majority of GE corn and soy are engineered to resist toxic pesticides, most commonly glyphosate, a key component of Monsanto's Roundup Ready line of products. Though these crops came with a promise of decreased pesticide usage, the reality is starkly different: between 1996 and 2011, herbicide use increased by 527 million pounds.³⁸ Not only do these pesticides kill soil health and biodiversity, they also have concerning implications for human and pollinator health. Exposure to pesticides is linked to increased rates of cancer and neurological disorders, especially in children, as well as reproductive harm.³⁹ Recently, the World Health Organization determined that glyphosate is a probable carcinogen to humans.⁴⁰

Overuse of glyphosate is resulting in the growing prevalence of weed resistance, causing "super weeds." Farmers are on a pesticide treadmill where using higher quantities of herbicide on their GE crops no longer kills the weeds in the field; and so they are seeking stronger, more toxic chemicals.⁴¹ Despite the already visible environmental harm and health impacts of herbicides like glyphosate, the Environmental Protection Agency recently approved three herbicides that are even more toxic to human health and the environment: 2,4-D (a component of Agent Orange), Enlist Duo (a Roundup and 2,4-D combo), and dicamba.⁴²

Pesticides used on dairy feed crops also negatively impact key pollinators species such as butterflies and bees, which are responsible for pollinating at least 30% of the world's food crop.⁴³ Neonicotinoids (neonics), a class of insecticides, appear to significantly harm honey bee colonies over the winter and are linked to colony collapse disorder.⁴⁴ 90% of US corn is pretreated with neonics.⁴⁵ In 2009, the neonicotinoid global market, of which Bayer, Syngenta, and Sumitomo (Bayer) share a collective majority, made \$2.6 billion in neonicotinoids sales.⁴⁶ Monsanto is the top seller of seeds pre-treated with neonics.⁴⁷ Since one in three bites of food is pollinated, the danger pesticides present to pollinators is of major concern.⁴⁸



CONCLUSION

The facts are clear: Because organic certification prohibits the use of antibiotics, hormones, GE feed, and feed treated with nearly all synthetic pesticides or fertilizers, organic, small- to medium-scale dairy farms have clear environmental and health benefits over industrialized conventional dairy operations. The current industrialized system is input-intensive, with negative impacts on environmental and human health. Additionally, the animal welfare impacts of the current system are inexcusable, and it is time for things to change.

We believe Starbucks can make a positive impact at every step along the supply chain by transitioning to organic milk. Ultimately, this commitment would build the market for organic dairy overall, thereby opening up access to organic dairy for smaller coffee companies and cafes. Green America understands the current strains on the supply of organic dairy and does not expect Starbucks to make this transition overnight, but rather make a long-term commitment to more sustainable practices.

We urge Starbucks to make the following changes:

- Transition all of its dairy across its 22,000 stores to organic. In making this transition, it will support more sustainable local dairies and work to prevent further industrialization of the organic industry.
- Make a commitment to higher animal welfare standards for dairy cows, including clearly defining responsible usage of antibiotics, as stated in recent company welfare commitments.⁵²

- Make a commitment to giving animals the maximum amount of access to pasture and grass, going beyond the organic standards.
- Be a leader in the organic milk sector and create programs to support and train farmers to transition to organic. By doing so, the company will guarantee a fair price to the farmers and help increase the supply of organic milk in the US.
- Do not pass the cost of transitioning to organics onto consumers. Starbucks can reduce the cost of organic milk adoption with an orderly transition over 5-10 years.
- Make a public statement supporting consumers' right to know about GMOs in their food, and commit not to fund oppositional campaigns at the state and federal level.

By sourcing a large volume of organic or humane milk, a company like Dean Foods is in a unique position to trigger positive change along the entire supply chain. With its purchasing power and clout, it can be a part of making organics and grass-fed principles the norm rather than the exception, improving the landscape of dairy in the US overall.

We cannot wait for corporations to decide to make these changes independently, we must use our purchasing power to force their hands. To do so, you as consumers can vote with your dollars at the store by shifting your purchasing practices. ■



DOES THAT LATTE STILL SOUND APPEALING?
TELL STARBUCKS TO SWITCH TO ORGANIC MILK

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BENEFITS OF ORGANIC, NON-INDUSTRIAL MILK ⁴⁹

USDA organic standards for milk require that farmers adhere to protocols that lead to healthier cows and more nutritious milk, with lower environmental impacts than conventional. Milk sourced from small- to medium-scale certified organic dairies would ensure that:

- Cows must have a minimum of four months at pasture where their diet comes from grazing.
- Cows cannot be treated with antibiotics or hormones throughout their lifecycle.
- Cow feed cannot contain GE crops.
- Cow feed cannot be treated with most pesticides or synthetic fertilizers.

While an organic certification is a great indicator that milk is considerably better than its conventional counterpart, going beyond organic can improve buying practices even further. There are a multitude of labels and certifications besides organic. There are so many of labels that deciphering their meanings and knowing which guarantee ethical practices can be daunting. Some labels you can trust include Animal Welfare Approved, the Global Animal Partnership (GAP) 6-step rating program, and the American Grassfed Approved logo.⁵⁰

If you are having trouble deciphering between food labels or a product is not labeled, resources exist that provide information about the standards of companies selling milk in grocery stores. For example, The Cornucopia Institute provides scorecards rating companies on various issues like GMO voting record and animal welfare standards.⁵¹

Another way to support sustainably and ethically produced dairy is to find a local source of milk products. Small dairies exist in almost every part of the country which allow their animals space to move around and use feed that is not produced from genetically engineered crops. By locating and purchasing products from these farms it's possible to consume dairy without consuming GE ingredients and supporting poor animal stewardship. Farmers markets, natural food stores, and co-ops, as well as an online search are great places to start.

The best way to do the least harm in one's choice of dairy is, of course, to choose plant-based alternatives like soy, nut, or coconut milk. These dairy-free milks should be organic to ensure they were not grown using harmful chemical pesticides and fertilizers.

While giving up dairy may seem difficult, new vegan cheeses, yogurts, ice creams, and other classic animal products are being released all the time, and improving as the market for them grows. If giving up dairy entirely seems like too much of a challenge, even limiting the amount of dairy one consumes makes a difference.



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CONSUMER ACTION

- Buy USDA certified organic milk whenever possible.
- Support brands that have other certifications that signify better dairy practices like Animal Welfare Approved, American Grass Fed Approved, and Global Animal Partnership (GAP). For a full guide on which labels to trust, find our list via <https://www.greenamerica.org/food-labels>.
- Consult online resources like The Cornucopia Institute whose Dairy Scorecard can tell you how common brands rank in their commitment to ethical dairy farming. Some brands we suggest are Straus Family Creamery, Murray's Cheese, Cowgirl Creamery, and Saxon Homestead Creamery.
- Shop at your local farmers' market and have a conversation with dairy farmers in your area about what their environmental and animal welfare practices are and what kind of feed they use. Some things you may want to ask about are whether and for how long cows have access to pasture, whether they use growth hormones or non-therapeutic antibiotics, and whether their feed is organic and/or non-GMO.
- Shop at local natural food stores and coops and talk to their staff and members about where they source their dairy from.
- Join a sustainable dairy CSA (community supported agriculture) in your area. CSA programs allow you to become a shareholder that gets a "share" of milk each week that is usually delivered to a pick-up location or available for pick up at the farm. Visiting the farm allows you to ensure it employs good practices. Investigate options like this as well as farms that sell online or from farm stands in your area.⁵³
- Write, email, and call (1-800-395-7004) Starbucks and ask them to improve their sustainability and animal stewardship. Explain that you would love to enjoy their products as soon as they transition to better environmental and animal welfare practices.
- Reduce the amount of milk and milk-based products you buy such as yogurt, cheese, and chocolate. This can be part of a vegan, plant-based lifestyle or simply an effort to reduce consumption.
- Frequent restaurants and coffee shops that are committed to sourcing sustainable dairy. Starbucks may not use organic milk, but there are plenty of great coffee shops that do.
- If you are having trouble deciphering food labels or a product is not labeled, resources exist that provide information about the standards of companies selling milk in grocery stores. For example, The Cornucopia Institute provides scorecards rating companies on various issues like GMO voting record and animal welfare standards.



ENDNOTES

- 1 Starbucks. (2015). Starbucks Coffee International. Retrieved from <http://www.starbucks.com/business/international-stores>
- 2 Molla, R. (2014). New York has nine Starbucks for every square mile in Manhattan. Wall Street Journal. Retrieved from <http://blogs.wsj.com/numbers/new-york-has-nine-starbucks-for-every-square-mile-in-manhattan-1647/>
- 3 Lepore, M. (2011). 15 facts about Starbucks that will blow your mind. Business Insider. Retrieved from <http://www.businessinsider.com/15-facts-about-starbucks-that-will-blow-your-mind-2011-3?op=1> *estimate based on prior calculations; Lepore, M. (2011). 15 facts about Starbucks that will blow your mind. Business Insider. Retrieved from <http://www.businessinsider.com/15-facts-about-starbucks-that-will-blow-your-mind-2011-3?op=1> *estimate based on prior calculations
- 4 Starbucks. (2015). Our Company –Our Heritage. Retrieved from <http://www.starbucks.com/about-us/company-information>
- 5 Kurlansky, M. (2014). Inside the milk machine: How modern dairy works. Modern Farmer. Retrieved from <http://modernfarmer.com/2014/03/real-talk-milk/>
- 6 Hauter, W. (2012). Foodopoly: The battle over the future of food and farming in America. New York: New Press.; Dairy Foods. (2014). The dairy 100: Enhanced dairy 100 report. Retrieved from <http://www.dairyfoods.com/ext/resources/files/2014-Dairy100-Table-links1.pdf>
- 7 Hauter, W. (2012). Foodopoly: The battle over the future of food and farming in America. New York: New Press
- 8 Food & Water Watch. (2012). Factory farm map. Retrieved from <http://www.factoryfarmmap.org/states/us/>
- 9 Allen, W. & Colby, M. (2016). Industrial dairy cow blues. VT Digger. Retrieved from <https://vtdigger.org/2016/12/21/will-allen-michael-colby-industrial-dairy-cow-blues/>
- 10 Kurlansky, M. (2014). Inside the milk machine: How modern dairy works. Modern Farmer. Retrieved from <http://modernfarmer.com/2014/03/real-talk-milk/>; Eicher, S. (2010)
- 11 Environmental Protection Agency. (2012). Lifecycle production phases. Ag 101. Retrieved from <http://www.epa.gov/agriculture/ag101/dairy-phases.html>
- 12 Kurlansky, M. (2014). Inside the milk machine: How modern dairy works. Modern Farmer. Retrieved from <http://modernfarmer.com/2014/03/real-talk-milk/>; Eicher, S. (2010). Dairy cow welfare fact sheet. United States Department of Agriculture Livestock Behavior Research Unit. Retrieved from <http://www.ars.usda.gov/SP2UserFiles/Place/50201500/Dairy%20Cow%20Lameness%20Fact%20Sheet.pdf>
- 13 Environmental Protection Agency. (2012). Lifecycle production phases. Ag 101. Retrieved from http://www.epa.gov/agriculture/ag101/dairy-phases.html#docs/understanding_cafos_nalboh.pdf
- 14 Hribar, C. (2014). Understanding concentrated animal feeding operations and their impact on communities. Center for Disease Control. Retrieved from http://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf
- 15 Food & Water Watch. (2010). Factory farm nation: How America turned its livestock farms into factories. Retrieved from <http://www.factoryfarmmap.org/wp-content/uploads/2010/11/FactoryFarmNation-web.pdf>
- 16 Bohanec, H. (2014). California's drought-Who is really using all the water?. One Green Planet. Retrieved from <http://www.onegreenplanet.org/news/californias-drought-whos-really-using-all-the-water/>
- 17 Food & Water Watch. (2014). Antibiotic resistance 101: How antibiotic misuse on factory farms can make you sick. Retrieved from http://www.aphis.usda.gov/animal_health/nahms/dairy/downloads/dairy07/Dairy07_is_ContMastitis.pdf; Benbrook, C., Benbrook, K. L., & Mellon, M. (2014). Hogging it: Estimates of antimicrobial abuse in livestock. Union of Concerned Scientists. Retrieved from http://www.ucsusa.org/food_and_agriculture/our-failing-food-system/industrial-agriculture/hogging-it-estimates-of.html#_VOYIFU1Ftk
- 18 Animal Welfare Approved. (2010). Dairy cattle antibiotic residue review. Retrieved from <http://animalwelfareapproved.org/2010/09/27/dairy-cattle-antibiotic-residue-review/>; Wageningen UR. (2012). Antibiotic usage in dairy cows. Retrieved from <http://www.wageningenur.nl/en/Research-Results/Projects-and-programmes/MARAN-Antibiotic-usage/Trends-in-use-per-species/Antibiotic-usage-in-dairy-cows.html>
- 19 Schroedery, J.W. (2012). Bovine mastitis and milking management. North Dakota State University Extension Service. Retrieved from <http://www.ag.ndsu.edu/pubs/ansci/dairy/as1129.pdf>
- 20 Cooke, C. (2016). "Nightmare" bacteria resistant to last resort antibiotics discovered on farm. Civil Eats. Retrieved from <http://civileats.com/2016/12/15/26075/>
- 21 Centers for Disease Control and Prevention. (2013). Antibiotic resistance threats in the United States, 2013. Retrieved from <http://www.cdc.gov/drugresistance/threat-report-2013/>
- 22 Centers for Disease Control and Prevention. (2013). Antibiotic resistance threats in the United States, 2013. Retrieved from <http://www.cdc.gov/drugresistance/threat-report-2013/>
- 23 American Cancer Society. (2014). Recombinant bovine growth hormone. Retrieved from <https://www.cancer.org/cancer/cancer-causes/recombinant-bovine-growth-hormone.html>
- 24 Baytril. Mastitis. Retrieved from <https://www.baytril.com/en/farm-animals/cattle/mastitis/>
- 25 Gee; K. (2016). America's Dairy Farmers Dump 43 Million Gallons of Excess Milk. Wall Street Journal. <https://www.wsj.com/articles/american-dairy-farmers-dump-43-million-gallons-of-excess-milk-1476284353>
- 26 Conklin, T. (2014, February 25). An animal welfare history lesson on the Five Freedoms. Retrieved from http://msue.anr.msu.edu/news/an_animal_welfare_history_lesson_on_the_five_freedoms
- 27 National Corn Growers Association. (2012). World of corn: Unlimited possibilities. Retrieved from <http://www.ncga.com/upload/files/documents/pdf/WOC%202013.pdf>
- 28 United States Department of Agriculture Economic Research Service. (2014). Adoption of genetically engineered crops in the U.S. Retrieved from <http://www.ers.usda.gov/data-products/adoption-of-genetically-engineered-crops-in-the-us/recent-trends-in-ge-adoption.aspx>
- 29 The International Service for the Acquisition of Agri-biotech Applications. (2016). Brief 52 –Global status of commercialized biotech/GMO crops:2016. Retrieved from <http://www.isaaa.org/resources/publications/briefs/52/download/isaaa-brief-52-2016.pdf>
- 30 ETC Group. (2011). Who will control the green economy?. Retrieved from <http://www.etcgroup.org/content/who-will-control-green-economy-0>
- 31 National Corn Growers Association. (2013). World of corn: Unlimited possibilities. Retrieved from <http://www.ncga.com/upload/files/documents/pdf/WOC%202013.pdf>; Hauter, W. (2012). Foodopoly: The battle over the future of food and farming in America. New York: New Press
- 32 Wills, K. (2013). Where to do all these soybeans go. Michigan State University Extension. Retrieved from http://msue.anr.msu.edu/news/where_do_all_these_soybeans_go
- 33 Carman, J. A., Clinch-Jones, C.A., Edwards, J.W., Haynes, J.I., Robinson, G.W., Sneller, V.E., ...Vlieger, H.R. (2014). A long-term toxicology study on pigs fed a combined genetically modified (GM) soy and GM maize diet. Journal of Organic Systems. Retrieved from <http://www.organic-systems.org/journal/81/8106.pdf>; Hilbeck, A. (2014). No scientific consensus on GMO safety. Environmental Sciences Europe. Retrieved from <http://www.enveurope.com/content/pdf/s12302-014-0034-1.pdf>

- 34 Friends of the Earth Europe. (2013). The environmental impacts of glyphosate. Retrieved from http://www.foeeurope.org/sites/default/files/press_releases/foee_5_environmental_impacts_glyphosate.pdf
- 35 Benites, Jose & Bot, Alexandra. (2005). The importance of soil organic matter: Key to drought-resistant soil and sustained food production. Food and Agricultural Organization of the United Nations. Retrieved from <http://www.sustainabletable.org/207/soil-quality#>
- 36 Bruckner, M. (2012). The Gulf of Mexico dead zone. Microbial Life: Educational Resources. Retrieved from <http://serc.carleton.edu/microbelife/topics/deadzone/index.html>
- 37 Environmental Protection Agency Office of Wetlands, Oceans, and Watersheds. (2014). Northern Gulf of Mexico hypoxic zone. Washington, DC. Retrieved from <http://water.epa.gov/type/watersheds/named/msbasin/zone.cfm>
- 38 Gillam, C. (2012). Pesticide use ramping up as GMO crop technology backfires: study. Reuter. Retrieved from <http://www.reuters.com/article/2012/10/02/us-usa-study-pesticides-idUSBRE89100X201210023>
- 39 Abrahamson, J., Leu, A., Swanson, N. L., & Wallet, B. (2014). Genetically engineered crops, glyphosate and the deterioration of health in the United State of America. Journal of Organic Systems, 9(2). Retrieved from http://people.csail.mit.edu/seneff/Swanson_et_al_2014.pdf; Antoniou, M., Habib, M. E. M., Howard, C. V., Jennings, R. C., Leifert, C., Nodari R. Ro.,... Fagan, R. (2012). Teratogenic effects of glyphosate-based herbicides: Divergence of regulatory decisions from scientific evidence. Journal of Environmental and Analytical Toxicology. Retrieved from <http://earthopensource.org/wp-content/uploads/Antoniou-Teratogenic-Effects-of-Glyphosate-Based-Herbicides.pdf>; Leon, M. E. & Schinasi, L. (2014). Non-Hodgkin Lymphoma and occupational exposure to agricultural pesticide chemical groups and active ingredients: A systematic review and meta-analysis. International journal of environmental research and public health. Doi: 10.3390/ijerph1104044
- 40 Benbrahim-Tallaa, L., El Ghissassi, F., Grosse, Y., Guha, N., Guyton, K. Z. ... Straif, K. (2015). Carcinogenicity of tetrachlorvinphos, parathion, malathion, diazinon, and glyphosate. The Lancet Oncology. Retrieved from [http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045\(15\)70134-8/abstract](http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(15)70134-8/abstract)
- 41 Food & Water Watch. (2013). Superweeds: How biotech crops bolster the pesticide industry. Retrieved from http://documents.foodandwaterwatch.org/doc/Superweeds.pdf#_ga=1.79981975.1042159242.1422553281
- 42 Gurian-Sherman, D. (2015). The next phase of genetic engineering: A flood of new crops evading environmental regulation. Civil Eats. Retrieved from <http://civileats.com/2015/01/27/the-next-phase-of-genetic-engineering-a-flood-of-new-crops-evading-environmental-regulation/>
- 43 Food and Agricultural Organization of the United Nations. (2014). Biodiversity for a world without hunger: Pollinators. Retrieved from <http://www.fao.org/biodiversity/components/pollinators/en/>
- 44 Callahan, R., Lu C., & Warchol, K. (2012). In situ replication of honey bee colony collapse disorder. Bulletin of Insectology 64(1). Retrieved from <http://cdn1.sph.harvard.edu/wp-content/uploads/sites/216/2012/10/in-situ-replication-of-honey-bee-colony-collapse-disorder.pdf>
- 45 Philpott, T. (2012). 90 percent of corn seeds are coated with Bayer's bee-decimating pesticide. Mother Jones. Retrieved from <http://www.motherjones.com/tom-philpott/2012/05/catching-my-reading-ahead-pesticide-industry-confab>
- 46 Simon, M. (2014). Follow the honey: 7 ways pesticide companies are spinning the bee crisis to protect profits. Friends of the Earth. Retrieved from <http://libcloud.s3.amazonaws.com/93/f0/f/4656/FollowTheHoneyReport.pdf>
- 47 Simon, M. (2014). Follow the honey: 7 ways pesticide companies are spinning the bee crisis to protect profits. Friends of the Earth. Retrieved from <http://libcloud.s3.amazonaws.com/93/f0/f/4656/FollowTheHoneyReport.pdf>
- 48 Natural Resource Defense Council. (2011). Why we need bees: Nature's tiny workers put food on our tables. Retrieved from <https://www.nrdc.org/wildlife/animals/files/bees.pdf>
- 49 USDA Organic. (2011). Organic Production and Handling Standards. Retrieved from <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELDEV3004445http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0082429>
- 50 ASPCA. Meat, Eggs and Dairy Label Guide. (2017). Retrieved from <http://www.aspc.org/take-action/help-farm-animals/meat-eggs-dairy-label-guide>
- 51 Economic Justice for Family Scale Farming. (2017). Retrieved, from <https://www.cornucopia.org/>
- 52 Pacelle, W. (2014). Starbucks: That's a latte progress. A Humane Nation. Retrieved from <http://blog.humanesociety.org/wayne/2014/12/starbucks-goes-cage-free.html>
- 53 Hahn Niman, N. (2010). Avoiding Factory Farm Foods. Huffpost.http://www.huffingtonpost.com/nicolette-hahn-niman/avoiding-factory-farm-foo_b_353525.html



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