



8033 Sunset Blvd, Ste 864
Los Angeles, CA 90046

☎ 866-632-6446
[MercyForAnimals.org](https://www.MercyForAnimals.org)

Seth Meyer
Chief Economist
Office of the Chief Economist, U.S. Department of Agriculture
Room 112-A, Whitten Federal Building
Washington, DC 20250

Re: Mercy For Animals' public comment on Docket Number: USDA-2021-0003

Dear Chief Meyer,

Mercy For Animals is grateful for the opportunity to provide input to the U.S. Department of Agriculture on climate-smart agriculture and forestry strategy in response to President Biden's Executive Order on Tackling the Climate Crisis at Home and Abroad of January 27, 2021. Mercy For Animals is an international 501(c)(3) organization dedicated to constructing a compassionate food system. We understand that positive agriculture and forestry practices can benefit farmers, ranchers, rural communities, animals, and other stakeholders while mitigating the climate crisis.

I. Industrial animal agriculture accelerates climate change

Globally, animal agriculture is responsible for about 14.5 percent of total anthropogenic greenhouse gas emissions.¹ Emissions are attributable to feed production and processing (including land-use change through expansion of pasture and feed crops into forests), enteric fermentation, manure storage and processing, and processing and transportation of animal products.² In the United States, agriculture is responsible for 9.6 percent of total greenhouse gas emissions.³ The primary agricultural emissions are methane, nitrous oxide, and carbon dioxide.⁴ Methane and nitrous oxide are especially dangerous for climate change, as their global warming potentials are 28–36 and 265–298 times that of carbon dioxide, respectively.⁵ Livestock are a

¹ P. J. Gerber et al., *Tackling Climate Change Through Livestock: A Global Assessment of Emissions and Mitigation Opportunities* (Rome: Food and Agriculture Organization of the United Nations, 2013), 15.

² Gerber et al., 17–20.

³ United States Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2019* (Washington, DC: EPA, 2021), 2-21.

⁴ EPA, *Inventory*, 2-21.

⁵ "Understanding Global Warming Potentials," United States Environmental Protection Agency, last modified September 9, 2020, <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>.

significant source of U.S. agricultural emissions, particularly due to enteric fermentation and manure management.⁶

Although animal agriculture is a widely recognized threat to climate, industrial and large-scale livestock production continues. Annually, 9.5 billion animals are raised for food in the United States,⁷ most of which are raised in industrial models. Meanwhile, over half the 2,042,220 farms in the United States are devoted to raising animals.⁸ This is antithetical to the administration's and the USDA's goals of tackling climate change domestically and internationally.

A. Transitioning from industrial animal agriculture is necessary to adequately mitigate climate change

In order to successfully mitigate climate change, the role of industrial animal agriculture must be acknowledged and addressed. A 2020 study published in *Science* reveals that, even if fossil fuel emissions were immediately halted, current trends in global food systems, especially those associated with animal agriculture, would prevent achievement of the temperature targets outlined in the Paris Agreement.⁹ Proposed methods of reducing emissions from livestock include carbon sequestration through grass-fed and grass-finished ruminants, alteration of ruminants' diets (e.g., animal feed additives), and anaerobic digesters.¹⁰ However, research demonstrates that the actual potential of these methods is limited and that their implementation faces major financial and technical barriers.¹¹ Because technological and management changes to animal agriculture are insufficient to mitigate climate change, transitioning from industrial animal agriculture more generally is critical.

II. Industrial animal agriculture hurts farmers, harms rural communities, and perpetuates environmental injustice

Industrial animal agriculture is detrimental not just to the climate but also to farmers, rural communities, and disadvantaged communities.

⁶ EPA, *Inventory*, 2-21

⁷ United States Department of Agriculture, *2017 Census of Agriculture: United States Summary and State Data*, vol. 1, part 51 (Washington, DC: USDA, 2019), 7.

⁸ United States Department of Agriculture National Agricultural Statistics Service, *2017 Census of Agriculture Highlights: Farms and Farmland* (Washington, DC: USDA NASS, 2019), 2.

⁹ Michael A. Clark et al., "Global Food System Emissions Could Preclude Achieving the 1.5° and 2°C Climate Change Targets," *Science* 370, no. 6517 (November 2020): 705.

¹⁰ Tara Garnett et al., *Grazed and Confused?* (Oxford: Food Climate Research Network, 2017), 8–10; Breanna M. Roque et al., "Red Seaweed (*Asparagopsis taxiformis*) Supplementation Reduces Enteric Methane by Over 80 Percent in Beef Steers," *PLOS One* (March 2021),

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0247820>; Georgina Gustin, "As the Livestock Industry Touts Manure-to-Energy Projects, Environmentalists Cry 'Greenwashing,'" *Inside Climate News*, December 7, 2020, <https://insideclimatenews.org/news/07122020/livestock-industry-manure-energy-natural-gas/>.

¹¹ Mario Herrero et al., "Greenhouse Gas Mitigation Potentials in the Livestock Sector," *Nature Climate Change* 6 (2016): 452.

As of 2017, 49 percent of livestock farmers were bound by contract farming,¹² a form of vertical integration defined by “a legal agreement between a farm operator (contractee) and another person or firm (contractor) to produce a specific type, quantity, and quality of agricultural commodity.”¹³ Farmers take on massive debt to enter animal agriculture; while the average U.S. Small Business Administration loan since 2010 is just \$277,000, the average loan to poultry, cattle, and hog growers is \$694,711, \$788,328, and \$870,538, respectively.¹⁴ Of note, contract farming is particularly prevalent in poultry and hog production.¹⁵ Farmers’ financial risk is exacerbated by the “tournament system,”¹⁶ which rewards farmers who produce the heaviest animals with the least feed, thus leading to variable and unpredictable paychecks, income discrepancies among farmers, and a lack of transparency in the process. Factors that determine the animals’ weight are typically controlled by the companies that contract with farmers. In this system, farmers lack autonomy and financial security. Financial insecurity, coupled with extreme debt loads, leaves farmers with limited alternatives to contract livestock production and contributes to financial ruin.

Additionally, the farms associated with industrial animal agriculture—concentrated animal feeding operations (CAFOs)—harm rural communities. CAFOs produce air pollutants, most commonly particulate matter, ammonia, and hydrogen sulfide, which all pose human health risks, including respiratory problems and chronic lung disease.¹⁷ Livestock rearing is one of five human activities responsible for half of air-pollution-related deaths in the United States.¹⁸ Furthermore, CAFOs generate vast amounts of manure. Large operations can produce more than 1.6 million tons of manure a year.¹⁹ As a result, nearby groundwater and surface water become tainted with chemicals, heavy metals, and bacteria, posing threats to safe drinking water.²⁰

¹² James M. MacDonald and Christopher Burns, “Marketing and Production Contracts Are Widely Used in U.S. Agriculture,” *Amber Waves* (magazine of the USDA Economic Research Service), July 1, 2019, <https://www.ers.usda.gov/amber-waves/2019/july/marketing-and-production-contracts-are-widely-used-in-us-agriculture/>.

¹³ “Contracting,” United States Department of Agriculture Economic Research Service, last modified January 6, 2021, <https://www.ers.usda.gov/topics/farm-economy/farm-structure-and-organization/contracting/>.

¹⁴ Christopher Walljasper, “Poultry Growers, Caught Between Strict Rules and Financial Risk, Lean Heavily on Government-Backed Loans,” *Investigate Midwest*, December 11, 2018, <https://investigatamidwest.org/2018/12/11/poultry-growers-caught-between-strict-rules-and-financial-risk-lean-heavily-on-government-backed-loans/>.

¹⁵ MacDonald and Burns.

¹⁶ James M. MacDonald, “Financial Risks and Incomes in Contract Broiler Production,” *Amber Waves*, August 4, 2014, <https://www.ers.usda.gov/amber-waves/2014/august/financial-risks-and-incomes-in-contract-broiler-production/>.

¹⁷ Carrie Hribar, *Understanding Concentrated Animal Feeding Operations and Their Impact on Communities* (Bowling Green, OH: National Association of Local Boards of Health, 2010), 6, table 1.

¹⁸ Sumil K. Thakrar et al., “Reducing Mortality from Air Pollution in the United States by Targeting Specific Emission Sources,” *Environmental Science & Technology Letters* 7, no. 9 (2020): 639–45.

¹⁹ United States Government Accountability Office, *Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern* (Washington, DC: U.S. Government Accountability Office, 2008), 5.

²⁰ Hribar, 2–3.

Lastly, industrial animal agriculture is a cause of environmental, racial, and social injustice. CAFOs are disproportionately located in communities of color and low-income communities, subjecting members of these communities to air and water pollution, poor public health, plummeting property values, and political disempowerment.²¹ Several studies demonstrate that those who work in and reside near CAFOs face increased levels of allergic and respiratory symptoms and disease.²²

III. Transfarmation: Empowering farmers in the global shift from industrial farmed animal production to plant-focused agriculture

Transfarmation, a project by Mercy For Animals, is a program that supports farmers in transitioning from industrial animal agriculture to plant-focused farming, or growing crops.²³ In our pilot year, we successfully partnered with four farmers in West Virginia, North Carolina, and Texas and helped them transition from raising animals such as swine and poultry to growing hemp and mushrooms using their existing infrastructure. For instance, we worked with the Halley family in Cookville, Texas, enabling them to transition from contract poultry farming to more lucrative and sustainable hemp production.²⁴

A. Transfarmation benefits the climate

Transfarmation benefits the climate by decreasing greenhouse gas emissions and reducing the amount of land and water necessary for food production. Animal-based foods are significantly more resource-intensive, including emissions-intensive, than plant-based foods.²⁵ Because animal-based foods require substantially more land to produce than plant-based foods, animal-to-crop farm transitions free up land, allowing for soil regeneration and carbon sequestration, and provide more food for people. Additionally, repurposing land from livestock production to crop farming eliminates feed production and processing, enteric fermentation, and manure management. Thus, Transfarmation yields emissions reductions achievable only through plant-focused agriculture.

²¹ Christine Ball-Blakely, “CAFOs: Plaguing North Carolina Communities of Color,” *Sustainable Development Law and Policy Brief* 18, no. 1 (2017): 4–6.

²² Amy A. Schultz et al., “Residential Proximity to Concentrated Animal Feeding Operations and Allergic and Respiratory Disease,” *Environmental International* 130 (September 2019): 1–9; María Cambra-López et al., “Airborne Particulate Matter from Livestock Production Systems: A Review of an Air Pollution Problem,” *Environmental Pollution* 158, no. 1 (January 2010): 1–17; Kelley J. Donham et al., “Community Health and Socioeconomic Issues Surrounding Concentrated Animal Feeding Operations,” *Environmental Health Perspectives* 115, no. 2 (February 2007): 317–20.

²³ “Transfarmation” (home page), Transfarmation, accessed April 23, 2021, <https://thetransfarmationproject.org/>.

²⁴ “Successful Transfarmations,” Transfarmation, accessed April 23, 2021, <https://thetransfarmationproject.org/our-farmers/halley-farms-successful-chicken-to-hemp-transfarmation/>.

²⁵ J. Poore and T. Nemecek, “Reducing Food’s Environmental Impacts Through Producers and Consumers,” *Science* 360, no. 6392 (June 2018): 987–92.

B. Transfarmation benefits farmers as well as local and regional economies

Transfarmation benefits farmers by placing them in a model of agricultural production that is more financially secure than contract animal farming. Transfarmation relieves farmers' severe debt, provides them with more-profitable opportunities, such as entrepreneurship, and affords them the worker autonomy they deserve. More income for farmers means more money circulating throughout local and regional economies. Plant-focused farming also creates agricultural jobs for local communities. For instance, the industrial hemp market is expected to grow from \$4.6 billion in 2019 to \$26.6 billion in 2025.²⁶ This trend has the potential to increase profits and expand the job market for farmers.

C. Transfarmation benefits rural and disadvantaged communities

Transfarmation benefits rural communities by removing the environmental externalities, including pollution, caused by CAFOs. Transfarmation is particularly important for disadvantaged communities, who are disproportionately impacted by CAFOs' harms. In addition to the numerous public health issues in communities adjacent to industrial animal agriculture operations, many studies over the past 50 years have shown lower quality of life, greater poverty, higher crime, lack of social services, and lower civic participation in rural communities encroached on by large industrial farms.²⁷ Declining property values and reduced enjoyment of property are additional implications of the proliferation of industrialized animal agriculture.²⁸ These trends have been confirmed by research as well as nuisance lawsuits, such as a recent case in North Carolina.²⁹ Transitioning from industrial animal agriculture operations to plant-focused ones will not only mitigate detrimental environmental pollutants but also improve quality of life and wealth in rural areas.

IV. Transfarmation serves as a model for the USDA

Given the several advantages of Transfarmation, Mercy For Animals believes that the USDA should advance policies, programs, and funding mechanisms that align with this model. We propose the following strategies to encourage voluntary adoption of climate-smart agriculture and forestry practices on working farms, ranches, and forest lands that will sequester carbon, reduce greenhouse gas emissions, and ensure resilience to climate change:

- Make farmers transitioning from producing animals to growing food crops eligible for funding through the Farm Service Agency's beginning farmer and rancher loans.
- Make farmers transitioning from producing animals to growing food crops a priority for funding through the Environmental Quality Incentives Program (EQIP).

²⁶ Research and Markets, "Industrial Hemp Market Worth 26.6 Billion by 2025," news release, June 2019, <https://www.prnewswire.com/news-releases/north-america-mushroom-market-report-2019-2027-300926291.html>.

²⁷ Brother David Andrews and Timothy J. Kautza, *Impact of Industrial Farm Animal Production on Rural Communities* (Washington DC: Pew Commission on Industrial Farm Animal Production, 2008), 25–27.

²⁸ Andrews and Kautza, 21.

²⁹ Gary D. Robertson, "Court Upholds Hog Verdict; Smithfield Announces Settlement," Associated Press, November 19, 2020, <https://apnews.com/article/north-carolina-courts-4b2f1db4c21e03653851e81b81996410>.

- Make farmers transitioning from producing animals to growing food crops a priority for funding through the Conservation Stewardship Program.
- Stimulate innovation in climate-mitigation-focused agricultural operations by prioritizing access to credit through the USDA's loan guarantee program.

Partners and stakeholders, including state, local, and tribal governments and the private sector, can work with the USDA to advance climate-smart agriculture and forestry practices:

- Prioritize research into transitioning industrial animal operations to plant-focused operations.
- Prioritize farms transitioning from industrial animal agriculture to plant-focused agriculture for loan guarantees and other forms of financial support.
- Prioritize farms transitioning from industrial animal agriculture to plant-focused agriculture for funding through EQIP and other environment-oriented financial incentive programs.
- Create climate-mitigation grant funding for farms transitioning from industrial animal agriculture to plant-focused agriculture.

Where agriculture and forestry can provide carbon benefits, we propose the following strategy for the USDA to support emerging markets for carbon and greenhouse gases:

- Research the additionality and leakage oversight of carbon offset protocols that finance use of anaerobic digesters and animal feed additives. These offset protocols further entrench the power and environmental externalities of industrial animal agriculture at the expense of small farmers and do not adequately reduce greenhouse gas emissions. Instead, these methods incentivize farmers to increase herd sizes, which results in leakage through additional feed production, land-use change, enteric fermentation, manure management, and processing.

To effectively execute climate-smart agriculture and forestry strategies, the USDA requires additional funding:

- Grants from the National Institute of Food and Agriculture for research that will accelerate the transition of industrial animal operations to plant-focused operations.
- Substantially increased investment in expanding rural broadband access to facilitate the creation of new climate-smart economies.

Where benefits accrue to producers, we propose the following strategy for the USDA to encourage efficient voluntary adoption of climate-smart agriculture and forestry practices:

- Implement strong payment-control mechanisms, such as payment limitations and adjusted gross income eligibility criteria, as the agency has done in the context of other programs. Adjusted gross income eligibility criteria will ensure large corporate actors are

not eligible for funding, while payment limitations will ensure benefits do not accrue to a small number of producers.

Regarding “Environmental Justice and Disadvantaged Communities Questions,” the USDA should leverage policies, programs, and funding mechanisms to support disadvantaged landowners, producers, and communities:

- Allocate a specified percentage of funding for animal-to-crop farm transitions to farmers of color. A percentage of funding for socially disadvantaged farmers and ranchers, particularly farmers of color as specified in the 2501 program, will ensure equity in programming, funding, and financing capacities. Prioritizing partnerships with 1890 land-grant institutions ensures that all producers, landowners, and communities can participate in climate-smart agriculture and forestry practices and access technical assistance.

V. Biogas from industrial animal agriculture perpetuates climate change

In response to a request for public comment on “Biofuels, Wood and Other Bioproducts, and Renewable Energy Questions,” Mercy For Animals opposes the adoption and production of CAFO-sourced biogas collected from anaerobic digesters as a form of energy. Biogas detracts from implementation of legitimately clean energy, further entrenches unsustainable agricultural practices, and does nothing to address CAFOs’ negative health and environmental impacts on surrounding communities. Biogas is merely an attempt to greenwash industrial animal agriculture’s damaging practices, which ultimately perpetuate the lagoon sprayfield system and discourage investment in truly clean, environmentally superior technologies. Moreover, the use of biogas contradicts the intentions expressed by request for comment on “Environmental Justice and Disadvantaged Communities Questions.” With or without anaerobic digesters that create biogas, CAFOs will continue to subject communities of color and low-income communities to the aforementioned environmental injustices, such as high levels of air pollution.

In conclusion, Mercy For Animals hopes that the USDA will take significant steps to mitigate industrial animal agriculture and its harms, particularly by empowering farmers who raise animals and grow animal feed to transition to sustainable plant-focused agriculture. Please do not hesitate to reach out, should you wish to discuss this further. Thank you for your consideration.

Respectfully,

A handwritten signature in black ink, appearing to read "AJ Albrecht". The signature is fluid and cursive, with a large loop at the end.

AJ Albrecht, Esq.
Director of Government Affairs
Mercy For Animals