

Delicious Diet for a Dying Planet

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(700 words)

We've all heard about the many ways we can reduce our carbon footprints. We do our best to implement them when we can. We shut off the lights. We ride our bicycles. Some of us make special efforts to purchase clean electricity. We demand sustainability from our governments. Sure, those are all good things to reduce our impact on climate. But how far do these things really get us? What else could we be doing to reduce our carbon footprints?

Did you know that our food system plays a big part in the degradation of our planet and that it's a huge source of greenhouse gas (GHG) emissions? Specifically, raising and feeding animals to eat them, aka animal agriculture, contributes the majority of our most damaging greenhouse gases: methane and nitrous oxide. The most comprehensive studies of our global food system have shown that plant-based diets reduce our food-related emissions by up to 73%.

It's not just about methane emissions from cow burps and waste lagoons, but also the massive and ongoing conversion of our landscape into cropland to feed tens of billions of livestock animals. Our livestock eat vastly more, and poop unfathomably more, than all the humans on Earth. And before you ask, eating locally sourced animal products makes almost no difference. The global transport of beef typically accounts for <1% of its GHG emissions. The science is clear, one of the most effective ways to lower your footprint is shifting to plant-based eating. Simply put, we cannot and will not stay below catastrophic levels of GHG emissions without addressing animal agriculture.

Yet, if this is so critical, why is promoting plant-based diets not a higher priority? Unfortunately, animal products are ingrained in old social norms, and there is now a trillion-dollar animal agriculture industry that is battling to keep it that way. This industry says that animal agriculture, its many supporting businesses, complex infrastructure, large government subsidies, and global trade are good for the economy. But if we changed to plant-based diets, they would be better for the economy since they would provide the same benefits but have much lower environmental costs.

You've heard of the pig waste lagoons, drainage from over-crowded feedlots, and industrial chicken coops that are reservoirs of disease for humans and wildlife. Right now, there are 22.5 billion cows, chickens, sheep, and pigs on the planet. The 1.5 billion cows have an annual footprint of 7.1 billion tons of CO₂ eq*. The 19 billion chickens we produce have a footprint of 360 million tons of CO₂ eq. Plant foods are much cleaner and have footprints ranging from 2 to 10% of beef's CO₂ footprint.

Plant foods are not only cleaner, they're also tasty, healthy, and nutritious. Be assured, plant-based eating is not a 'restricted' diet, and it's not just salads. There are hundreds of varieties of beans and legumes, thousands of types of grains, vegetables, and fruits, and an endless variety of recipes to appeal to every taste. Flavor does not go by the wayside; there is plenty of salt, fat, acid, and sugar in the plant kingdom. Think of all your favorite plant-based herbs, spices, and condiments that make food taste good. And even the most naysaying meat-eaters are fooled by today's plant-based meats.

Also, plants pack plenty of protein, as clearly shown by strictly plant-eating elephants, gorillas, oxen, and many successful human bodybuilders. By eating plant-based diets, some of the overabundance of protein that almost all of us get could be replaced by what 95% of us are actually deficient in - fiber, which only comes from plants. Don't think of it as eating less meat, dairy, and eggs; think of it as eating a rich palette of plant foods.

Isn't it amazing that simply swapping beef for beans or eggs for eggplant, finding your favorite plant milk, and rediscovering produce could make such a dramatic contribution toward a sustainable existence? And eating plant-based food offers beneficial side effects on personal health, public health, and for the animals themselves. So why not rediscover food and save our planet along the way? You have the power; there's no waiting for a solution, no fighting for legislation, no technology required. And no excuses.

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* "eq" stands for equivalent meaning that the methane and nitrous oxide emissions have been converted into the equivalent tons of CO₂ that would cause the same amount of global warming.

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References:

Poore J and T Nemecek. 2018 Reducing food's environmental impacts through producers and consumers. *Science* 360: 987-992.

Ritchie H. 2020 "You want to reduce the carbon footprint of your food? Focus on what you eat, not whether your food is local." *OurWorldInData.org*. Accessed 02/10/24: <https://ourworldindata.org/food-choice-vs-eating-local>.

Rizzo NS, Jaceldo-Siegl K, Sabate J, and GE Fraser. 2013 Nutrient profiles of vegetarian and nonvegetarian dietary patterns. *J Acad Nutr Diet*. 113(12):1610-9.

King DE, Mainous AG 3rd, CA Lambourne. 2012 Trends in dietary fiber intake in the United States, 1999-2008. *J Acad Nutr Diet*. 112(5):642-8.

Quagliani D and P Felt-Gunderson. 2016 Closing America's Fiber Intake Gap: Communication Strategies From a Food and Fiber Summit. *Am J Lifestyle Med*. 11(1):80-85.

Kuhn K and K Andersen. 2015 *The Sustainability Secret*. Insight Editions.

Global Carbon Project. "Global Carbon Atlas," Methane and Nitrous Oxide Budgets. Accessed 2/27/2024: <https://www.globalcarbonproject.org/methanebudget/20/files/MethaneInfographic2020.png> , <https://www.globalcarbonproject.org/nitrousoxidebudget/20/files/NitrousOxideInfographic2020.png>.