



May 2, 2025

The Honorable Representative Dave M. Rogers, Chair
The Honorable Senator Joanne M. Comerford, Chair
Joint Committee on Higher Education
194th General Court of the Commonwealth of Massachusetts

Submitted via email

RE: Testimony in Support of S. 922, An Act relative to the Bean New Deal

Dear Chairs Rogers and Comerford:

On behalf of the Center for Biological Diversity and our more than 34,000 members and supporters in the state of Massachusetts, thank you for considering our testimony in strong support of S. 922, An Act relative to the Bean New Deal. By increasing access to both plant-based protein options and education about the benefits of plant-forward diets across public institutions in Massachusetts, S. 922 will greatly improve the state's environmental footprint in addition to expanding health equity and nutrition access for all residents.

The Center for Biological Diversity is a leading conservation nonprofit organization dedicated to the protection of endangered species and wild places, and one of the major ways we do this is by encouraging a sustainable and resilient food system that prioritizes plant foods over animal foods. Animal agriculture is one of the largest causes of climate change,¹ biodiversity loss,² pollution,³ resource consumption,⁴ deforestation,⁵ and many other environmental problems. Animal-based foods are responsible for producing twice as many greenhouse gas emissions than plant-based foods,⁶ despite producing just 5% of global calories consumed and 9% of U.S. calories consumed.⁷ Meanwhile, plant-based foods are overwhelmingly better for the

¹ Twine R. (2021). Emissions from animal agriculture—16.5% is the new minimum figure. *Sustainability*, 13(11), 6276. <https://doi.org/10.3390/su13116276>

² Benton, T., Bieg, C., Harwatt, H., Pudasaini, R., & Wellesley, L. (2021). *Food system impacts on biodiversity loss*. Chatham House. <https://www.chathamhouse.org/2021/02/food-system-impacts-biodiversity-loss>

³ Wu, Y., Li, Z., & Fang, J. (2021). Environmental pollution and health hazards caused by animal agriculture manure. *Journal of Environmental and Occupational Medicine*, 38(11), 1284—1290. <https://dx.doi.org/10.13213/j.cnki.jeom.2021.21133>

⁴ UN FAO. (2022). *The state of the world's land and water resources for food and agriculture – Systems at breaking point*. United Nations. <https://doi.org/10.4060/cb9910en>

⁵ UN FAO. (2021, June 11). *COP26: Agricultural expansion drives almost 90 percent of global deforestation*. <https://www.fao.org/newsroom/detail/cop26-agricultural-expansion-drives-almost-90-percent-of-global-deforestation/en>

⁶ Xu, X., Sharma, P., Shu, S., Tzu-Shun, L., Ciais, P., Tubiello, F.N., Smith, P., Campbell, N., & Jain, A.K. (2021). Global greenhouse gas emissions from animal-based foods are twice those of plant-based foods. *Nature Food*, 2, 724–732. <https://doi.org/10.1038/s43016-021-00358-x>

⁷ Our World in Data. (2023). *Share of calories from animal protein vs. GDP per capita, 2021*. https://ourworldindata.org/grapher/share-of-calories-from-animal-protein-vs-gdp-per-capita?country=OWID_WRL~USA

environment and human health. Many studies that compared plant-based diets to meat-heavy diets concluded that plant-based diets generally contribute the lowest negative environmental impacts, including the fewest GHG emissions and the least land and water usage.^{8 9 10 11}

Studies show that we cannot meet critical climate change targets without greatly reducing greenhouse gas emissions from the food and agriculture sector, which requires societal shifts toward lower-emission plant-based foods.^{12 13} A report from the United Nations found that the current trend toward more meat- and dairy-heavy diets is projected to increase food-related emissions by 80% by 2050, which would make them responsible for half of all emissions allowed to maintain the global temperature rise below 2 degrees Celsius.¹⁴ However, another study found that if we reverse this trend by encouraging and providing access to more nutritious plant-based foods, this could result in a 29-70% reduction in food-related GHG emissions by 2050, in addition to a 6-10% reduction in global mortality.¹⁵

Expanding access to healthy plant-based foods will also greatly benefit nutritional outcomes and disease prevention among the people of Massachusetts. The 2025 Dietary Guidelines Advisory Committee recognized that the healthiest and most nutritious dietary patterns are characterized by “higher intakes of vegetables, fruits, legumes, and nuts” and “lower intakes of refined grains, red and processed meats, sugar-sweetened foods and beverages, and saturated fat,” noting that these traits are associated with “lower risks of cardiovascular disease, type 2 diabetes, obesity, age-related cognitive decline, and colorectal and breast cancer.”¹⁶ Based on these findings, the Advisory Committee recommended that Americans shift their diets to emphasize consumption of plant-based protein sources such as bean, peas, and lentils while reducing consumption of red and processed meats.¹⁷

⁸ Eshel, G., Shepon, A., Noor, E., & Milo, R. (2016). Environmentally optimal, nutritionally aware beef replacement plant-based diets. *Environmental Science & Technology*, 50(15). <https://www.doi.org/10.1021/acs.est.6b01006>

⁹ Chai, B.C., van der Voort, J.R., Grofelnik, K., Eliasdottir, H.G., Kloss, I., & Perez-Cueto, F.J.A. (2019). Which diet has the least environmental impact on our planet? A systematic review of vegan, vegetarian and omnivorous diets. *Sustainability*, 11, 4110. <https://doi.org/10.3390/su11154110>

¹⁰ Jennings, R., Henderson, A. D., Phelps, A., Janda, K. M., & van den Berg, A. E. (2023). Five U.S. dietary patterns and their relationship to land use, water use, and greenhouse gas emissions: Implications for future food security. *Nutrients*, 15(1), 215. <https://doi.org/10.3390/nu15010215>

¹¹ Blackstone, N.T., El-Abbadi, N.H., McCabe, M.S., Griffin, T.S., & Nelson, M.E. (2018). Linking sustainability to the healthy eating patterns for the Dietary Guidelines for Americans: A modelling study. *The Lancet Planetary Health*, 2(8), e344-e352. [https://doi.org/10.1016/S2542-5196\(18\)30167-0](https://doi.org/10.1016/S2542-5196(18)30167-0)

¹² Hedenus, F., Wirsenius, S., & Johansson, D.J.A. (2014). The importance of reduced meat and dairy consumption for meeting stringent climate change targets. *Climatic Change*, 124, 79-91. <https://doi.org/10.1007/s10584-014-1104-5>

¹³ Springmann, M., Clark, M., Mason-D'Croz, D. et al. (2018). Options for keeping the food system within environmental limits. *Nature*, 562, 519–525. <https://doi.org/10.1038/s41586-018-0594-0>

¹⁴ Tirado-von der Pahlen, C. (2017). *Sustainable diets for healthy people and a healthy planet*. United Nations System Standing Committee on Nutrition. <https://www.unscn.org/uploads/web/news/document/Climate-Nutrition-Paper-EN-WEB.pdf>

¹⁵ Springmann M, Godfray HCJ, Rayner M, Scarborough P (2016b). Analysis and valuation of the health and climate change co-benefits of dietary change. *PNAS*, 113(15), 4146–4151. <https://doi.org/10.1073/pnas.1523119113>

¹⁶ 2025 Dietary Guidelines Advisory Committee. (2024). *Scientific report of the 2025 dietary guidelines advisory committee*. U.S. Department of Health and Human Services and U.S. Department of Agriculture.

[https://www.dietaryguidelines.gov/sites/default/files/2024-](https://www.dietaryguidelines.gov/sites/default/files/2024-12/Scientific_Report_of_the_2025_Dietary_Guidelines_Advisory_Committee_508c.pdf)

[12/Scientific_Report_of_the_2025_Dietary_Guidelines_Advisory_Committee_508c.pdf](https://www.dietaryguidelines.gov/sites/default/files/2024-12/Scientific_Report_of_the_2025_Dietary_Guidelines_Advisory_Committee_508c.pdf)

¹⁷ Ibid.

Thank you again for considering the Center for Biological Diversity's testimony in support of S. 922. By enacting this legislation to expand access to plant-based foods – and increasing nutritional knowledge and choice, rather than limiting them – Massachusetts will strengthen its leadership as a state committed to ensuring a healthy planet and healthy people.

Sincerely,

Leah Kelly

Food and Agriculture Policy Specialist
Center for Biological Diversity
lkelly@biologicaldiversity.org